The Open Heart Surgery Risk Stratification Project

Data Collection Form, Version 4.3

Instructions and Data Specifications

EFFECTIVE JANUARY 1, 2015

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INTRODUCTION

This document contains information about the Open Heart Surgery Risk Stratification Project (Project), the revised data collection form (Version 4.3), definitions of data elements, and the file layout for the Project. The data definitions follow definitions issued in Version 2.81 of the National Cardiac Surgery Database by the Society of Thoracic Surgeons (STS).

In addition to maintaining consistency with STS revisions, the current revision is intended to simplify data capture and reporting including data management and analysis. As an example, we have provided three separate fields for a surgeon's name (first name, last name and middle initial) on the data collection form. In addition, we have included a license number field for each surgeon to improve identification and volume reporting. Another key revision on the new form is that all data elements are assigned numeric codes. This practice is expected to minimize data entry time as well as the time it takes to manage the data. Among other minor revisions made on the form are adding a "Not Discharged" option against Discharge Status, revised payor codes to maintain consistency with other administrative data and a new field on status of a patient 30 days after surgery.

The New Jersey Department of Health, Office of Health Care Quality Assessment is available to assist you with any questions you may have on the Open Heart Surgery Risk Stratification Project. If you have any questions or comments, please contact the Office of Health Care Quality Assessment at (609) 984-7334. You may also contact us by regular mail at the following address:

Priya Fox
Office of Health Care Quality Assessment
New Jersey Department of Health
P.O. Box 360
Trenton, New Jersey 08625-0360

GENERAL INFORMATION

Data Submission

All hospitals that are licensed to perform adult open heart surgery are required to provide data on each patient. Data are to be submitted every quarter to the Department within thirty (30) days after the close of the quarter. The data submission schedules are as follows:

Quarter	Months Included in Data Submission	Due Date
First	January – March	April 30
Second	April - June	July 30
Third	July - September	October 30
Fourth	October - December	January 30

The data collection form provided in this document is a guide for data entry and is not intended to be completed or submitted with the data file. Data may be collected using any vendor provided program, but must be submitted following the format specified in Appendix III of this manual. Data may be submitted on a CD or electronically through a secure file transfer protocol or secure e-mail. If you need to compress the data file, you may use the file compression program WINZIP. Preferred file format is comma delimited text (.csv or .txt). Excel files are not accepted.

Please send the data via overnight delivery to the following address:

Priya Fox
Office Health Care Quality Assessment
New Jersey Department of Health
225 East State Street, 2nd floor
Trenton, New Jersey 08608

Quarterly Activity

Following each quarterly submission, the Department will run an error trapping program to identify data entry errors. This program generates hospital specific reports listing the number of procedures by type, by surgeon, and any identified data entry errors including missing information. The program will also check possible duplicate records. Each hospital will be sent its error report for verification and/or corrections. Hospitals will have thirty (30) days to respond to this error report by submitting a corrected year-to-date cumulative file along with a dated and signed letter of certification from the hospital representative responsible for the project. If the Department does not receive the information as requested within the 30-day deadline, the Department will assume there are no corrections to be made. Failure to submit corrected data may result in hospitals not meeting licensure requirements.

In addition to the quarterly data submission, hospitals may submit (isolated CABG) mortality cases to be considered for exclusion from the annual Cardiac Surgery Report Card. The criteria for exclusion consideration are as follows:

- *the patient has just been or is being resuscitated en route to the operation room,*
- *an angioplasty or cardiac catheterization crash, or*
- *the death was caused by complications of a second operation unrelated to the cardiac surgery.*

To submit cases for possible exclusion, complete the form entitled "Application for CABG Only Case Exclusion" (Appendix I). The completed form should be accompanied with a completely blinded copy (i.e., hospital, physician and patient identifiers removed) of the medical record documentation of each case submitted for exclusion. The medical record documentation should include the *operative report*, *discharge summary and any other medical record that substantiates the case for exclusion*. This blinded medical record package will be the one reviewed by the Department's Clinical Review Panel. For administrative purposes, the submission should also include a full set of non-blinded documentation for each case.

Annual Activity

Hospital specific frequency analysis tables will be generated and distributed. Hospitals will be given thirty (30) days to respond to this mailing. If a hospital's revised data is not received as requested, the Department will assume there are no corrections to be made in the hospital's data.

In addition, the Department will perform an internal review of the data by matching records from the *Open Heart Surgery data* against the *Uniform Billing records* (UB-92) and the State Death Registry to verify mortality status. If any discrepancies are identified, the Department will contact the hospital(s) for corrections and/or clarifications.

The only corrections accepted after the database closure will be those requested by the Department. Any exceptions to this policy must be submitted in writing to the Director, Office of Health Care Quality Assessment. Accompanying this request should be any medical record documentation (if applicable) which may be reviewed by the Department's Clinical Panel. It is at the Department's discretion to accept or reject any request for a change on records after the database is closed.

Audit and Department Review

Upon receipt of the final updated data from hospitals, the Department will consider the annual data closed for any changes or updates. The Department will then review the latest data submissions to ensure that all requested corrections were made. Any requests that were not corrected by the hospital may be selected as part of the medical record audit.

The closed data will constitute the sampling frame from which a sample will be drawn for the medical record audit. The selected sample data file will be given to an auditor, contracted by the Department, to review the sampled medical records for consistency and accuracy of reporting.

The auditor will provide the hospital a copy of the audit report that it submits to the Department. Hospitals will have 30 working days following their audits to make any corrections generated by the audit or request a review of the audit findings through buck slips within 10 days following the audit. Any buck slip submitted by the hospital should be accompanied with all supporting documents on the patient's medical records along with a summary statement describing why the hospital believes the audit findings are incorrect. The Department will review the buck slips and determine the merits of the buck slips on a case-by-case basis based on the additional information provided. The Department will notify the hospital on its decision regarding the contested cases a nd request a revised data submission reflecting the changes.

After the data are updated, the Department will produce a final frequency table to be reviewed by each hospital. Upon receipt of the final frequency tables, hospitals will have thirty (30) days to review and submit letter of certification to the Department.

The Cardiac Surgery Report

The certified data will be used to produce the Cardiac Surgery Report. This report will assess their risk-adjusted mortality rates by hospital, surgeon and for the state. The risk-adjusted mortality rate estimate is the result of a rigorous statistical model which takes into account preoperative risk factors of patients as well as their socio-demographic characteristics.

CARDIAC SURGERY PROJECT	
Quarterly Activity	**Annual Activity**
Year-to-date cumulative data submission due to the Department 30 days after close of quarter. Department runs error trapping program and distributes to hospitals. Hospitals respond within 30 days to error trapping report.	Run error trapping program, produce frequency tables' reported deaths verified through data matching. Hospitals have 30 days to respond to error reports and other inconsistencies identified. Database closed for Auditing. Sample selected and audit conducted. Hospital has 30 days to submit corrected data based on audit findings. Final frequency analysis performed. Hospitals sign off on data. Database is closed for analysis. Cardiac Surgery Report produced.

New Jersey Department of Health
OPEN HEART SURGERY RISK STRATIFICATION PROJECT
DATA COLLECTION FORM, VERSION 4.3

A. DEMOGRAPHICS

Patient: Last Name (1): _____ First Name (2): _____ MI(3): _____

Date of Birth (mm/dd/yyyy)(4): ___/___/_____ Gender (5): Male = 0 Female = 1 _____

SS# (6): __ __ __ - __ __ - __ __ __ __ Medical Record # (7): _____ Patient Zip Code (8): __ __ __ __ __

Race (9): White=1 Black=2 Asian=3 Native American/Alaska Native=4 Hawaiian/Other Pacific Islander=5 Other=6 Multiracial=7 _____

Hispanic or Latino (10): No=0 Yes=1 _____

Referring Cardiologist: Last Name (11): _____ First Name (12): _____ MI(13): _____

Referring Physician: Last Name (15): _____ First Name (16): _____ MI(17): _____

B. HOSPITALIZATION

Hospital Code (18): __ __ __ __ Medical Facility Transferred From Code (19): __ __ __ __

Payor (20): Blue Cross/Blue Shield=1 Commercial=2 HMO=3 Medicaid=4 Medicare=5 Self-Pay=6 Tricare (CHAMPUS)=7
Uninsured/Indigent=8 Other=9 _____

Date of Admission (mm/dd/yyyy)(21): ___/___/_____ Date of Surgery (mm/dd/yyyy)(22): ___/___/_____

Date of Discharge (mm/dd/yyyy)(23): ___/___/_____

Discharged Where (24): Not Discharged=0 Home=1 Other Acute Care Hosp=2 Rehab/Sub-Acute/LTAC=3 Nursing Home=4
Other=5 Deceased=6 Left AMA=7 Hospice=8 Unknown=9 _____

C. PREOPERATIVE RISK FACTORS

Weight (25): _____ (kg) Height (26): _____ (cm)

Ever Smoker (27): No=0 Yes=1 _____ If Yes, Current Smoker (28): No=0 Yes=1 _____

Diabetes (29): No=0 Yes=1 _____ If Yes, Control Type (30): None=0 Diet=1 Oral=2 Insulin=3 Other/Other Subq=4 _____

Dyslipidemia (31): No=0 Yes=1 _____ If Yes, Control Type (32): None=0 Statin=1 Non-Statin=2 Both=3 _____

Last Creatinine Level Preop (33): _____

Renal Failure (34): No=0 Yes=1 _____ If Yes, Dialysis (35): No=0 Yes=1 _____

Hypertension (36): No=0 Yes=1 _____

Cerebrovascular Accident (37): No=0 Yes=1 _____

If Yes, When (38): Recent ≤30 Days=1 Remote >30 Days=2 _____

Cerebrovascular Disease (CVD) (39): No=0 Yes=1 _____

If Yes, Type of CVD (40): Coma=1 CVA=2 RIND=3 TIA=4 Non-Invasive >79%=5 Prior Carotid Surgery=6
Moderate Disease 50-79%=7 _____

Infectious Endocarditis (41): No=0 Yes=1 _____ If Yes, Type (42): Treated=1 Active=2 _____

Chronic Lung Disease (43): No=0 Mild=1 Moderate=2 Severe=3 Lung Disease Documented, Severity Unknown=4 _____

Immunosuppressive Therapy (44): No=0 Yes=1 _____

Peripheral Vascular Disease (45): No=0 Yes=1 _____

D. PREVIOUS CV INTERVENTIONS

Incidence (46): First CV Surgery=1 First reop=2 Second reop=3 Third reop=4 Four or more reops=5 _____

Prior PCI (47): No=0 Yes=1 _____

If Yes, Prior PCI-Interval (48): ≤6 Hours=1 >6 Hours=2 _____

E. PREOPERATIVE CARDIAC STATUS

Myocardial Infarction (49): No=0 Yes=1 _____

If Yes, When (50): ≤6 Hours=1 >6 Hours but <24 Hours=2 1-7 Days=3 8-21 Days=4 >21 Days=5 _____

Congestive Heart Failure (51): No=0 Yes=1 _____

Angina (52): No=0 Yes=1 _____ If Yes, Angina Type (53): Stable=1 Unstable=2 _____

Cardiogenic Shock (54): No=0 Yes at the time of the proc=1 Yes not at proc but <24 hours=2 _____

If Yes, Cardiogenic Shock Type (55): Refractory Shock=1 Hemodynamic Instability=2 _____

Resuscitation (56): No=0 ≤1 Hour=1 >1 Hour but within 24 Hours=2 _____

Arrhythmia (57): No=0 Recent (≤30 Days)=1 Remote (>30 Days)=2 _____

If Yes, Arrhythmia Type (58): None=0 Sust VT/VF=1 Heart Block=2 AFib/Flutter=3 Sick Sinus Syndrome=4 _____

NYHA Classification (59): I = 1 II = 2 III = 3 IV = 4 _____

F. PREOPERATIVE MEDICATIONS

Beta Blockers (60): No=0 Yes=1 Contraindicated=2 _____
ACE Inhibitors/ARBs (61): No=0 Yes=1 _____
Nitrates-IV (62): No=0 Yes=1 _____
Anticoagulants (63): No=0 Yes=1 _____
If Yes, Anticoagulant Medication Name (64): Heparin (Unfractionated)=1 Heparin (Low molecular)=2 Thrombin Inhibitors=3 Other=9 _____
Coumadin (65): No=0 Yes=1 _____
Inotropes (66): No=0 Yes=1 _____
Steroids (67): No=0 Yes=1 _____
Aspirin (68): No=0 Yes=1 _____
ADP Inhibitor (69): No=0 Yes=1 _____
Glyco IIB IIIA (70): No=0 Yes=1 _____
Other (71): No=0 Yes=1 _____

G. PREOPERATIVE HEMODYNAMICS AND CATH

Number of Diseased Coronary Vessels (Left Main Counts as Two) (72): None=0 One=1 Two=2 Three=3 Not Documented/Unknown=9 _____
Left Main Disease (>50% Occlusion) (73): No=0 Yes=1 Not Documented/Unknown=9 _____
Ejection Fraction Done (74): No=0 Yes=1 _____ If Yes, Ejection Fraction % (75): _____
Ejection Fraction Method (76): LVgram=1 Radionuclide=2 Estimate=3 Echo=4 MRI=5 Other=6 _____

H. OPERATIVE PROCEDURE

Surgery: Last Name (77): _____ First Name (78): _____ MI(79): _____ License #(80): _____
Status of Procedure (81): Elective=1 Urgent=2 Emergent=3 Emergent Salvage=4 _____
If Urgent, Reason (82): AMI=1 IABP=2 Worsening CP=3 CHF=4 Anatomy=5 USA=6 Rest Angina=7
Valve Dysfunction=8 Aortic Dissection=9 Angiographic Accident=10 Cardiac Trauma=11
Infected Device=12 Syncope=13 PCI/CABG Hybrid=14 PCI Failure w/o Clinical Deterioration=15
Aortic Aneurysm=16 Device Failure=17 Diagnostic/Interventional Procedure Complication=18
Endocarditis=19 Failed Transcatheter Valve Therapy=20 Intracardiac Mass or Thrombus=21
Ongoing Ischemia=22 PCI w/Clinical Deterioration=23 Pulmonary Edema=24
Shock Circ. Support=26 Shock No Circ. Support=27 Transplant=28 Other=29 _____
If Emergent, Reason (83): Shock Circ Supp=1 Shock No Circ Supp=2 Pulmonary Edema=3 AEMI=4 Ongoing Ischemia=5
Valve Dysfunction=6 Aortic Dissection=7 Angiographic Accident=8 Cardiac Trauma=9
Infected Device=10 Syncope=11 PCI/CABG Hybrid=12 Anatomy=13 Aortic Aneurysm=14
Congestive Heart Failure=15 Device Failure=16 Diag/Intervention Proc Complication=17
Endocarditis=18 Failed Transcatheter Valve Therapy=19 IABP=20
Intracardiac Mass or Thrombus=21 PCI Incomplete w/o Clinical Deterioration=22
PCI or attempted PCI w/Clinical Deterioration=23 Pulmonary Embolism=24 Rest Angina=25
Transplant=26 Unstable Angina=27 Worsening Chest Pain=28 Other=29 _____
Operative Category (84): CAB=1 CAB+Valve=2 CAB+Other=3 CAB+Valve+Other=4 Valve=5 Valve+Other=6 Other=7 _____
Robotic Technology used (85): No=0 Yes=1 _____
Minimally Invasive Incision Attempted (86): No=0 Yes=1 _____
If Yes, Conversion to Standard Incision (87): No=0 Yes=1 _____
CPB Utilization (88): None=0 Combination=1 Full=2 _____ If Combination or Full, Perfusion Time (min) (89): _____
Aortic Occlusion (90): None=0 Aortic Crossclamp=1 Balloon Occlusion=2 Partial Crossclamp=3 _____
If Aortic Crossclamp or Balloon Occlusion, Cross Clamp Time (min) (91): _____
Cardioplegia (92): No=0 Yes=1 _____
IABP (93): No=0 Yes=1 _____
If Yes, When Inserted (94): Preoperatively=1 Intraoperatively=2 Postoperatively=3 _____
Indication (95): Hemodynamic Instability=1 Procedural Support=2 Unstable Angina=3 CPB Wean=4 Prophylactic=5 Other=6 _____
Blood Products Used During Surgery (96): No=0 Yes=1 _____

I. CORONARY BYPASS

Number of Distal Anastomoses With Arterial Conduits (97): _____
Number of Distal Anastomoses With Venous Conduits (98): _____
Number of IMA Distal Anastomoses (99): _____
Number of Radial Artery Distal Anastomoses (100): _____
Number of Gastro-Epiploic Artery (GEPA) Distal Anastomoses (101): _____
Other Arterial Anastomoses (102): _____

J. VALVE SURGERY

Aortic (103): No=0 Replacement (excluding TAVR)=1 Repair/Reconstruct=2 Root Reconstruction with Valve Conduit=3 Replacement + Aortic Graft Conduit (not a valve conduit)=4 Root Reconstruction with Valve Sparing=5 Resuspension Aortic Valve with Replacement of Ascending Aorta=6 Resuspension Aortic Valve w/o Replacement of Ascending Aorta=7 Resection Sub-Aortic Stenosis=8 Apico-Aortic Conduit=9 Autograft with Pulmonary Valve-Ross Procedure=10 Homograft=11 Transcatheter AV Replacement=12 _____

Mitral (104): No=0 Annuloplasty Only=1 Replacement (excluding Transcatheter)=2 Reconstruction with Annuloplasty=3 Reconstruction without Annuloplasty=4 Transcatheter Replacement=5 _____

Tricuspid (105): No=0 Annuloplasty Only=1 Replacement (excluding Transcatheter)=2 Reconstruction with Annuloplasty=3 Reconstruction without Annuloplasty=4 Valvectomy=5 Transcatheter Replacement=6 _____

Pulmonic (106): No=0 Replacement (excluding Transcatheter)=1 Repair/Reconstruction=2 Valvectomy=3 Transcatheter Replacement=4 _____

K. OTHER PROCEDURES

Left Vent Aneurysm Repair (107): No=0 Yes=1 _____
Vent. Septal Defect Repair (108): No=0 Yes=1 _____
Atrial Septal Defect Repair (109): No=0 Yes=1 _____
Surgical Ventricular Restoration (110): No=0 Yes=1 _____
Congenital Defect Repair (111): No=0 Yes=1 _____
TMR (112): No=0 Yes=1 _____
Cardiac Trauma Repair (113): No=0 Yes=1 _____
Cardiac Transplant (114): No=0 Yes=1 _____
Pacemaker (115): No=0 Yes=1 _____
AICD (116): No=0 Yes=1 _____

Atrial Fib Correction (117): None=0 MAZE=1 Other=2 Combination=3 Left Atrial Appendage Ligation/Removal=4 _____
Aortic Aneurysm Repair (118): No=0 Yes=1 _____
Other Cardiac (119): No=0 Yes=1 _____
Carotid Endarterectomy (120): No=0 Yes=1 _____
Other Vascular (121): No=0 Yes=1 _____
Other Thoracic (122): No=0 Yes=1 _____
VAD (123): None=0 LVAD=1 RVAD=2 BiVAD=3 _____
Other non-Cardiac (124) No=0 Yes=1 _____

L. IN HOSPITAL COMPLICATIONS

OPERATIVE:
Reop-Bleeding/Tamponade (125): No=0 Yes=1 _____
Reop-Valvular Dysfunction (126): No=0 Yes=1 _____
Reop-Graft Occlusion(127): No=0 Yes=1 _____
Reop-Other Cardiac Problem (128): No=0 Yes=1 _____
Reop-Other Non-Cardiac Problem (129): No=0 Yes=1 _____
Perioperative MI (130): No=0 Yes=1 _____

NEUROLOGIC:
Postoperative Stroke For >24 Hrs (136): No=0 Yes=1 _____
Transient Neurologic Deficit (137): No=0 Yes=1 _____
Coma/Encephalopathy (138): No=0 Yes=1 _____

RENAL:
Renal Failure (142): No=0 Yes=1 _____
If Yes, Dialysis (143): No=0 Yes=1 _____

VASCULAR:
Iliac/Femoral Dissection (144): No=0 Yes=1 _____
Acute Limb Ischemia (145): No=0 Yes=1 _____

OTHER:
Heart Block (146): No=0 Pacemaker=1 ICD=2 Pacemaker/ICD=3 Other=4 _____
Anticoagulant (148): No=0 Yes=1 _____
GI Complication (150): No=0 Yes=1 _____
A-Fib/Flutter (152): No=0 Yes=1 _____
Other (154): No=0 Yes=1 _____
If Yes, Specify (155): _____

INFECTION:
Sternal-Deep (131): No=0 Yes=1 _____
Thoracotomy (132): No=0 Yes=1 _____
Leg (133): No=0 Yes=1 _____
Septicemia (134): No=0 Yes=1 _____
UTI (135): No=0 Yes=1 _____

PULMONARY:
Prolonged Ventilation (139): No=0 Yes=1 _____
Pulmonary Embolism (140): No=0 Yes=1 _____
Pneumonia (141): No=0 Yes=1 _____

Cardiac Arrest (147): No=0 Yes=1 _____
Tamponade (149): No=0 Yes=1 _____
Multi System Failure (151): No=0 Yes=1 _____
Aortic Dissection (153): No=0 Yes=1 _____

M. MORTALITY

Discharge Status (156): Alive=1 Dead=2 _____ Status at 30 Days after Surgery (160): Alive=1 Dead=2 Unknown=3 _____

If Dead, Date of Death (mm/dd/yyyy) (157): ____/____/____

Location of Death (158): OR During Initial Surgery=1 Hospital=2 Home=3 Other Care Facility=4
OR During Reoperation=5 Unknown=6 Extended Care Facility=7 Hospice=8
Acute Rehab=9 Other=10 _____

Primary Cause of Death (Select Only One) (159):
Cardiac=1 Neurologic=2 Renal=3 Vascular=4
Infection=5 Pulmonary=6 Valvular=7 Other=8 Unknown=9 _____

DATA DEFINITIONS AND SPECIFICATIONS

A. DEMOGRAPHICS

1. Patient's Last Name [LNAME]

Indicate the patient's last name.

2. Patient's First Name [FNAME]

Indicate the patient's first name.

3. Patient's Middle Initial [MI]

Indicate the patient's middle initial if available.

4. Date of Birth [DOB]

Indicate the month, day, and year of the patient's date of birth.

____ / ___ / ____
MM / DD / YYYY

5. Gender [SEX]

Indicate the patient's gender or sex.

0 = Male
1= Female

6. Social Security Number [SSNUM]

Indicate the patient's social security number in the USA.

_____ (nine digits SSN)

7. Medical Record Number [MEDRECNO]

Indicate the patient's medical record number at the hospital where surgery occurred.

_____ (Medical Record #)

8. Patient Zip Code [ZIP]

Indicate the patient's five digit zip code of the patient's residence.

_____ (5 digit zip code)

9. Race [RACE]

Enter the patient's race as determined by the patient. If multiple races are provided by the patient, enter the race the patient identifies with the most.

1 = White
2 = Black
3 = Asian (e.g., Indian, Pakistani, Chinese, Korean, etc.)
4 = Native American/Alaska Native
5 = Hawaiian/Other Pacific Islander
6 = Other
7 = Multiracial

10. Hispanic or Latino Origin of the Patient [Hispanic]

This field refers to whether or not a patient identifies himself/herself as Hispanic or Latino. A person who answered white, black, Asian, etc. in the race category may answer yes for Hispanic or Latino origin.

0 = No (Not Hispanic or Latino)
1 = Yes (Hispanic or Latino)

11. Referring Cardiologist's Last Name [CARDLNAME]

Indicate the referring cardiologist's last name.

12. Referring Cardiologist's First Name [CARDFNAME]

Indicate the referring cardiologist's first name.

13. Referring Cardiologist's Middle Initial [CARDMI]

Indicate the referring cardiologist's middle initial if available. If unknown, leave blank.

14. NO FIELD

15. Referring Physician's Last Name [REFLNAME]

Indicate the physician's last name.

16. Referring Physician's First Name [REFFNAME]

Indicate the physician's first name.

17. Referring Physician's Middle Initial [REFMI]

Indicate the physician's middle initial if available. **If unknown, leave blank.**

B. HOSPITALIZATION

18. Present Hospital [PRESHOSP]

Indicate the hospital code in which the current surgical procedure was performed using the list below. The assigned codes are consistent with Medicare provider numbers and are the same used in UB-92 discharge form.

CODE	HOSPITAL
0641	AtlantiCare Regional Medical Center
0140	Cooper University Medical Center
0310	Deborah Heart and Lung Center
0450	Englewood Hospital and Medical Center
0010	Hackensack University Medical Center
0740	Jersey City Medical Center
0730	Jersey Shore University Medical Center
0150	Morristown Memorial Hospital
0020	Newark Beth Israel Medical Center
0290	Our Lady of Lourdes Medical Center
0380	Robert Wood Johnson University Hospital
0760	Saint Barnabas Medical Center
0210	St. Francis Medical Center
0190	St. Joseph's Regional Medical Center
0060	St. Mary's Hospital
0960	St. Michael's Medical Center
1190	University Hospital
0120	Valley Hospital

19. Hospital Transferred From [TXFROM]

Enter the hospital code the patient transferred from the list provided below. Do not include outpatient clinics or labs. Use the following hospital codes which are based on Medicare provider numbers, utilizing the hospital division code. **Please note that the last digit refers to the hospital division code.**

Notes:

- Use "**0000**" for no transfers.
- Use "**8888**" for VA hospitals.
- Use "**9999**" for out of state hospitals.

#19: Hospital Code	Hospital Name
0000	No Transfer
0642	AtlantiCare Regional Medical Center-City
0641	AtlantiCare Regional Medical Center-Mainland
0250	Bayonne Medical Center
1120	Bayshore Community Hospital
0580	Bergen Regional Medical Center
0110	Cape Regional Medical Center
0920	Capital Health System at Fuld
0440	Capital Health System at Hopewell
1110	CentraState Medical Center
0170	Chilton Memorial Hospital
0160	Christ Hospital
0090	Clara Maass Medical Center
0410	Community Medical Center
0140	Cooper Hospital/University Medical Center
0310	Deborah Heart and Lung Center
0830	East Orange General Hospital
0450	Englewood Hospital and Medical Center
0010	Hackensack University Medical Center
1150	Hackettstown Community Hospital
0400	Hoboken University Medical Center
0080	Holy Name Hospital
0050	Hunterdon Medical Center
0740	Jersey City Medical Center
0730	Jersey Shore University Medical Center
1080	JFK Medical Center (Edison)
0862	Kennedy Mem. Hospitals UMC-Cherry Hill
0863	Kennedy Mem. Hospitals UMC-Stratford
0861	Kennedy Mem. Hospitals UMC-Wash. Twp.
0840	Monmouth Medical Southern Campus (formerly Kimball)
0610	Lourdes Medical Center of Burlington Cty.
1180	Meadowlands Hospital Medical Center
0910	Memorial Hospital of Salem County
0750	Monmouth Medical Center
0150	Morristown Memorial Hospital
0540	Mountainside Hospital
0020	Newark Beth Israel Medical Center
0280	Newton Medical Center
0522	Ocean Medical Center
0290	Our Lady of Lourdes Medical Center

#19: Hospital Code	Hospital Name
0510	Overlook Hospital
0030	Palisades General Hospital of New York
0392	Raritan Bay Medical Center-Old Bridge
0391	Raritan Bay Medical Center-Perth Amboy
0340	Riverview Medical Center
0380	Robert Wood Johnson University Hospital
1100	RWJ University Hospital at Hamilton
0240	RWJ University Hospital at Rahway
0470	Shore Memorial Hospital
0480	Somerset Medical Center
0324	Inspira Vineland (formerly South Jersey Regional Med Center)
0690	South Jersey Hospital-Elmer
1130	Southern Ocean Medical Center
0760	St. Barnabas Medical Center
0500	St. Clare's Hospital-Denville
0502	St. Clare’s Hospital-Dover
1200	St. Clare's Hospital-Sussex
0210	St. Francis Medical Center
0190	St. Joseph's Regional Medical Center
0191	St. Joseph's Wayne Hospital
0060	St. Mary's Hospital (Passaic)
0960	St. Michael’s Medical Center
0700	St. Peter's University Hospital
0270	Trinitas Hospital
1190	University Hospital
0810	Inspira Woodbury (formerly Underwood Memorial Hospital)
0100	University Medical Center of Princeton at Plainsboro
0120	Valley Hospital
0570	Virtua-Memorial Hospital Burlington Cty.
0222	Virtua-West Jersey Hospital Berlin
0224	Virtua-West Jersey Hospital Marlton
0221	Virtua-West Jersey Hospital Voorhees
0600	Warren Hospital
0880	William B. Kessler Memorial Hospital
8888	VA Hospital

20. Primary Payor [INSURER]

Indicate the primary insurer of the patient (See Appendix II for additional explanation of insurer classification).

1 = Blue Cross
2 = Commercial
3 = HMO
4 = Medicaid
5 = Medicare
6 = Self Pay
7 = Tricare (CHAMPUS)
8 = Uninsured/Indigent
9 = Other

21. Date of Admission [DATEADMIN]

Indicate the date the patient was admitted for this surgical procedure.

____ / ___ / ____
MM / DD / YYYY

22. Date of Surgery [DATEOPERA]

Indicate the date of surgery which equals the date the patient enters the OR.

____ / ___ / ____
MM / DD / YYYY

23. Date of Discharge [DATEDC]

Indicate the date the patient was discharged from the hospital (acute care). If the patient died in the hospital, the discharge date is the date of death.

____ / ___ / ____
MM / DD / YYYY

24. Discharged Where [DCWHERE]

Indicate where the patient was sent to or discharged to after surgery. If the patient is not discharged, enter '0'.

0 = Not Discharged
1 = Home
2 = Other Acute Care Hospital
3 = Rehab/Sub-Acute/LTAC
4 = Nursing Home
5 = Other
6 = Deceased
7 = Left AMA
8 = Hospice
9 = Unknown

C. PREOPERATIVE RISK FACTORS

25. Weight [WT]

Indicate the patient's weight in kilograms (round up to the next whole number) (1 lb = .45 kg or alternatively, 1 kg = 2.2 lbs).

_____ Kilograms (Valid range is 10.0 - 250.0)

26. Height [HT]

Indicate the height of the patient in centimeters (1 inch = 2.54 centimeters).

_____ Centimeters (Valid range is 20.0 - 251.0)

27. Smoker - Ever [SMOKEREVR]

Indicate whether the patient has a history confirming any form of tobacco use in the past (cigarettes, cigar, chewing tobacco, snuff, etc.). Note: this definition is different from the STS definition.

0 = No
1 = Yes

28. Smoker - Current [SMOKECURR]

Indicate whether the patient is a current smoker (or tobacco products user). Patients with a use of tobacco (cigarettes, cigar, chewing tobacco, snuff, etc.) within one month of surgery are considered to be current smokers (or current tobacco users). Note: this definition is different from the STS definition.

0 = No
1 = Yes

29. Diabetes [DIABETES]

Indicate whether the patient has a history of diabetes, regardless of duration of disease or need for anti-diabetic agents. Includes on admission or preoperative diagnosis. Does not include gestational diabetes.

0 = No
1 = Yes

30. Diabetic Control [DIABCONT]

Indicate the method of diabetic control. Code the control method patient presented with on admission. Patients placed on a pre-operative diabetic pathway of insulin drip but at admission were controlled with none, diet, or oral method are not coded as insulin dependent. Byetta should be coded as Other.

0 = None
1 = Diet
2 = Oral
3 = Insulin
4 = Other/Other Subcutaneous

31. Dyslipidemia [DYSLIPIDEMIA]

Indicate if the patient has prior history of dyslipidemia diagnosed and/or treated by a physician. Criteria can include documentation of:

1. Total cholesterol greater than 200 mg/dl, or
2. LDL greater than or equal to 130 mg/dl, or
3. HDL less than 30 mg/dl, or
4. Admission cholesterol greater than 200 mg/dl, or
5. Triglycerides greater than 150 mg/dl

Note: If treatment was initiated because the LDL was >100 mg/dl (2.59 mmole/l) in patients with known coronary artery disease, this would quantify as a "Yes". Any pharmacological treatment qualifies as a "Yes".

0 = No
1 = Yes

32. Dyslipidemia Control [DYSLIPCONT]

Indicate the lipid lowering medication the patient was on within 24 hours preceding surgery.

0 = None
1 = Statin
2 = Non-Statin
3 = Both

33. Pre-Op Creatinine Level [CREATININE]

Indicate the most recent creatinine level prior to surgery. A creatinine level should be collected on all patients for consistency, even if they have no prior history. A creatinine level is a high predictor of a patient's outcome.

_____ (Valid range is 0.1 - 30.0)

34. Renal Failure [RENAL]

Indicate whether the patient has 1) a documented history of renal failure and/or 2) a history of creatinine > 2.0. Prior renal transplant patients are not included as pre-op renal failure unless since transplantation their creatinine has been or currently is > 2.0.

0 = No
1 = Yes

35. Dialysis [DIALYSIS]

Indicate whether the patient is currently undergoing dialysis.

0 = No
1 = Yes

36. Hypertension [HYPERTEN]

Indicate whether the patient has a diagnosis of hypertension, documented by one of the following:

a. Documented history of hypertension diagnosed and treated with medication, diet and/or exercise.
b. Blood pressure > 140 systolic or > 90 diastolic on at least 2 occasions.
c. Is currently on antihypertensive medication.

0 = No
1 = Yes

37. Cerebrovascular Accident [CVA]

Indicate whether the patient has a central neurologic deficit persisting more than 72 hours (i.e. extremity weakness or loss of motion, loss of consciousness, loss of speech, field cuts).

0 = No
1 = Yes

38. CVA-When [CVAWHEN]

Indicate when the CVA events occurred. Those events occurring within two weeks of the surgical procedure are considered recent, while all others are considered remote.

1 = Recent (<=30 days)
2 = Remote (>30 days)

39. Cerebrovascular Disease [CVD]

Indicate whether the patient has Cerebro-Vascular Disease, documented by any one of the following:

- Unresponsive coma > 24 hrs
- CVA (symptoms > 72 hrs after onset)
- RIND (recovery within 72 hrs);
- TIA (recovery within 24 hrs)
- Non-invasive carotid test with > 79% occlusion, **or**
- Prior carotid surgery

Does not include neurological disease processes such as metabolic and/or anoxic ischemic encephalopathy.

0 = No
1 = Yes

40. Cerebrovascular Disease Type [CVDTYPE]

Indicate whether the patient has a history of cerebrovascular disease, documented by any one of the following:

- Unresponsive coma greater than 24 hours: Patient experienced complete mental unresponsiveness and no evidence of psychological or physiologically appropriate responses to stimulation.

- Cerebrovascular Accident (CVA): Patient has a history of stroke, i.e., loss of neurological function with residual symptoms at least 72 hours after onset.

- Reversible Ischemic Neurologic Deficit (RIND) - Patient has a history of loss of neurological function with symptoms at least 24 hours after onset but with complete return of function within 72 hours.

- Transient Ischemic Attack (TIA) - Patient has a history of loss of neurological function that was abrupt in onset but with complete return of function within 24 hours.

- Non-invasive/invasive carotid test with > 79% occlusion.

- Prior carotid surgery.

If more than one, select the most recent to the operative procedure. Select one of the following:

1 = Coma
2 = CVA
3 = RIND
4 = TIA
5 = Non-Invasive > 79%
6 = Prior carotid surgery
7 = Moderate Disease 50-79%

41. Infective Endocarditis [ENDOCARD]

Indicate whether the patient has a history of infectious endocarditis documented by one of the following:

1. Positive blood cultures
2. Vegetation on echocardiography
3. Documented history of infectious endocarditis

0 = No
1 = Yes

42. Infective Endocarditis Type [ENDOTYPE]

Indicate the type of endocarditis the patient has. If the patient is currently being treated for endocarditis, the disease is considered active. If no antibiotic medication (other than prophylactic medication) is being given at the time of surgery, then the infection is considered treated.

1 = Treated
2 = Active

43. Chronic Lung Disease [LUNGDIS]

Indicate whether the patient has chronic lung disease, and the severity level according to the following classification:

0 = No
1 = Mild: FEVI 60% to 75% of predicted, and/or on chronic inhaled or oral bronchodilator therapy.
2 = Moderate: FEVI 50% to 59% of predicted, and/or on chronic steroid therapy aimed at lung disease.
3 = Severe: FEVI < 50% predicted, and/or Room Air pO2 < 60 or Room Air pCO2>50
4 = Lung disease documented, severity unknown

44. Immunosuppressive Therapy [IMMUNOSUP]

Indicate whether the patient has used any form of immunosuppressive therapy (i.e. systemic steroid therapy) within 30 days preceding the operative procedure. This does not include topical applications and inhalers or one time systemic therapy.

0 = No
1 = Yes

45. Peripheral Vascular Disease [PVD]

Indicate whether the patient has a history of peripheral arterial disease (includes upper and lower extremity, renal, mesenteric, and abdominal aortic systems). This can include:

1. Claudication, either with exertion or at rest,
2. Amputation for arterial vascular insufficiency,
3. Vascular reconstruction, bypass surgery, or percutaneous intervention to the extremities (excluding dialysis fistulas and vein stripping),
4. Documented abdominal aortic aneurysm with or without repair,
5. Positive noninvasive test (e.g., ankle brachial index =< 0.9, ultrasound, magnetic resonance or computed tomography imaging of > 50% diameter stenosis in any peripheral artery, i.e., renal, subclavian, femoral, iliac) or angiographic imaging Peripheral arterial disease excludes disease in the carotid, cerebrovascular arteries or thoracic aorta. PVD does not include DVT.

0 = No
1 = Yes

D. PREVIOUS CV INTERVENTIONS

46. Incidence [INCIDENCE]

Indicate if this is the patient's first cardiovascular surgery, first re-op cardiovascular surgery, second re-op cardiovascular surgery, third re-op cardiovascular surgery, fourth or more re-op cardiovascular surgery.

1 = First CV surgery
2 = First re-operation
3 = Second re-operation
4 = Third re-operation
5 = Four or more re-operations

47. Prior PCI [PRIORPCI]

Indicate whether a previous Percutaneous Coronary Intervention (PCI) was performed any time prior to this surgical procedure by answering "Yes" or "No". PCI refers to those treatment procedures that unblock narrowed coronary arteries without performing surgery. PCI may include, but is not limited to:

1) Balloon Catheter Angioplasty, Percutaneous Transluminal Coronary Angioplasty (PTCA)
2) Rotational Atherectomy
3) Directional Atherectomy
4) Extraction Atherectomy
5) Laser Atherectomy
6) Intracoronary Stent Placement
7) Previous Pacemaker
8) Previous AICD

0 = No
1 = Yes

Note: this definition is different from the STS definition.

48. Prior PCI Interval [PCIINTERV]

Indicate the interval of time between the previous PCI and the current surgical procedure. Leave blank if no previous PCI.

1 = <=6 Hours
2 = >6 Hours

E. PREOPERATIVE CARDIAC STATUS

49. Myocardial Infarction [MIYN]

Indicate whether the patient has a history of an MI.

*For MI occurrence **prior** to current hospitalization, one of the following is necessary:*

1. MI documented in the medical record, **OR**
2. EKG documented Q wave. Q wave to be .03 seconds in width and/or greater than or equal to one third of the total QRS complex in two or more contiguous leads.

*For MI occurrence **during** current hospitalization, two of the following criteria are necessary:*

1. Ischemic symptoms in the presence or absence of chest discomfort. Ischemic discomfort may include:
   a. Chest, epigastric, arm, wrist or jaw discomfort with exertion or at rest;
   b. Unexplained nausea and vomiting;
   c. Persistent shortness of breath secondary to left ventricular failure;
   d. Unexplained weakness, dizziness, lightheadedness, diaphoresis or syncope.
2. Enzyme level elevation. One of the following four is necessary:
   a. CK-MB:
      - Maximal value of CK-MB > 2 x the upper limit of normal on one occasion during the first hours after the index clinical event
        OR
      - Maximal value of CK-MB, preferable CK-MB mass > upper limit of normal on two successive samples;
   b. CK>2x the upper limit of normal;
   c. LDH subtype 1> LDH subtype 2;
   d. Maximal concentration of troponin T or I > the MI decision limit on at least one occasion during the first 24 hours after the index clinical event.
3. Serial ECG (at least two) showing changes from baseline or serially in ST-T.

0 = No
1 = Yes

50. MI When [MIWHEN]

Indicate the time period between the last documented MI and surgery.

1 = <= 6 hours
2 = > 6 hours but <24 hours
3 = 1 to 7 days
4 = 8 to 21 days
5 = > 21 days

51. Congestive Heart Failure [CHF]

Indicate whether, within 2 weeks prior to the initial surgical procedure, a physician has diagnosed that patient is currently in congestive heart failure (CHF). CHF can be diagnosed based on careful history and physical exam, or by one of the following criteria:

1. Paroxysmal nocturnal dyspnea (PND)
2. Dyspnea on exertion (DOE) due to heart failure
3. Chest X-Ray (CXR) showing pulmonary congestion
4. Pedal edema or dyspea and receiving diuretics or digoxin

0 = No
1 = Yes

52. Angina [ANGINAYN]

Indicate whether the patient has ever had angina pectoris.

0 = No
1 = Yes

53. Angina Type [ANGINATYPE]

Indicate the type of angina present prior to this surgical intervention.

1 = Stable: Angina that is controlled by oral and/or transcutaneous medication. Patients that are pain free with or without medication but with a history of angina are captured here.

2 = Unstable: Angina which necessitates the initiation, continuation or increase of angina control therapies that may include: nitroglycerin drip, heparin drip or IABP placement. The type of angina may include, but is not limited to: rest angina, new onset exertional angina of at least New York Heart Association (NYHA) Class III in severity, recent acceleration in pattern and increase of one NYHA class to at least NYHA Class III, variant angina, non-Q wave myocardial infarction, or post-infarction angina.

54. Cardiogenic Shock [CARDIOGEN]

Indicate if the patient developed cardiogenic shock. Cardiogenic shock is defined as a sustained (>30 min) episode of hypoperfusion evidenced by systolic blood pressure <90 mm Hg and/or, if available, cardiac index <2.2 L/min per square meter determined to be secondary to cardiac dysfunction and/or the requirement for parenteral inotropic or vasopressor agents or mechanical support (e.g., IABP, extracorporeal circulation, VADs) to maintain blood pressure and cardiac index above those specified levels.

Note: Transient episodes of hypotension reversed with IV fluid or atropine do not constitute cardiogenic shock. The hemodynamic compromise (with or without extraordinary supportive therapy) must persist for at least 30 min.

0 = No
1 = Yes at the time of the procedure
2 = Yes not at the time of the procedure but within 24 hours

55. Cardiogenic Shock Type [SHOCKTYPE]

Indicate which of the following types of cardiogenic shock is present. Select one:

1 = Refractory Shock:	Systolic BP < 90 and/or Cardiac Index (CI) <2.2 despite maximal treatment
2 = Hemodynamic Instability:	IV inotropes and/or IABP necessary to maintain Systolic BP > 90 and CI > 2.2.

56. Resuscitation [RESUSCIT]

Indicate whether the patient required cardiopulmonary resuscitation within one hour before the start of the operative procedure.

0 = No
1 = <=1 hour
2 = >1 hour but <24 hours

57. Arrhythmia [ARRHYTH]

Indicate whether there is a history of preoperative arrhythmia (sustained ventricular tachycardia, ventricular fibrillation, atrial fibrillation, atrial flutter, third degree heart block) that has been clinically documented or treated with any of the following treatment modalities:

- ablation therapy
- AICD
- pacemaker
- pharmachological treatment
- electrocardioversion

0 = No
1 = Recent (<=30 days)
2 = Remote (>30 days)

58. Arrhythmia Type [ARRHYTHTYPE]

Indicate which arrhythmia is present within **two weeks** of the procedure; choose one: Sustained Ventricular Tachycardia (VT) or Ventricular Fibrillation (VF) requiring cardioversion and/or IV amiodarone, third degree heart block, atrial fibrillation/flutter requiring treatment.

0 = None
1 = Sustained VT/VF
2 = Heart block
3 = Afib/Flutter
4 = Sick Sinus Syndrome

59. New York Heart Association Classifications [NYHA]

Indicate the New York Heart Association Class. NYHA classification represents the overall functional status of the patient in relationship to both congestive heart failure and angina. Code the highest class leading to episode of hospitalization and/or procedure. Select the level of heart function and/or angina leading up to or at the time of the procedure, whichever is highest.

1=Class I: Patients with cardiac disease but without resulting limitation of physical activity. Ordinary physical activity does not cause undue fatigue, palpitation, dyspnea, or anginal pain.

2=Class II: Patients with cardiac disease resulting in slight limitation of physical activity. They are comfortable at rest. Ordinary physical activity results in fatigue, palpitations, dyspnea, or anginal pain.

3=Class III: Patients with cardiac disease resulting in marked limitation of physical activity. They are comfortable at rest, less than ordinary physical activity results in fatigue, palpitations, dyspnea, or anginal pain.

4=Class IV: Patients with cardiac disease resulting in inability to carry on with any physical activity without discomfort. Symptoms of cardiac insufficiency or of the anginal syndrome may be present even at rest. If any physical activity is undertaken, discomfort is increased.

F. PREOPERATIVE MEDICATIONS

60. Beta Blockers [BETABLKR]

Indicate whether the patient received Beta Blockers within **24 hours** preceding surgery.

0 = No
1 = Yes
2=Contraindicated

61. Ace Inhibitors/ARBs [ACEINHIB]

Indicate whether the patient received Ace Inhibitors or ARBs within **48 hours** preceding surgery.

0 = No
1 = Yes

62. Nitrates-I.V. [NITRATEIV]

Indicate whether the patient received I.V. Nitrates within 24 hours preceding surgery.

0 = No
1 = Yes

63. Anticoagulants [ANTICOAG]

Indicate whether the patient received IV and/or subQ Anticoagulants within **48 hours** preceding surgery. Do not capture Coumadin.

0 = No
1 = Yes

64. Anticoagulant Medication Name [ANTICOAGTYPE]

Indicate the name of the IV and/or subQ Anticoagulant the patient received within **48 hours** preceding surgery.

1 = Heparin (Unfractionated)
2 = Heparin (Low Molecular)
3 = Thrombin Inhibitors
9 = Other

65. Coumadin [COUMADIN]

Indicate whether the patient received Coumadin within 24 hours preceding surgery.

0 = No
1 = Yes

66. Inotropes [INOTROPES]

Indicate whether the patient received IV Inotropic Agents within 48 hours preceding surgery.

0 = No
1 = Yes

67. Steroids [STEROIDS]

Indicate whether the patient was taking steroids within **24 hours** preceding surgery. This does not include a one-time dose related to prophylaxis therapy (i.e. IV dye exposure for cath procedure or surgery pre-induction period). Non-systematic medications are not included in this category (i.e. nasal sprays, topical creams).

0 = No
1 = Yes

68. Aspirin [ASPIRIN]

Indicate whether the patient received Aspirin or Ecotrin within **5 days** preceding surgery.

0 = No
1 = Yes

69. ADP Inhibitor [ADPINHIB]

Indicate whether the patient has received ADP Inhibitors within **5 days** preceding surgery.

0 = No
1 = Yes

70. Glycoprotein (IIB IIIA) Inhibitor [GLYCO]

Indicate whether the patient received Glycoprotein IIB/IIIA inhibitors within 24 hours preceding surgery. These medications are anti-platelet, thrombin agents.

0 = No
1 = Yes

71. Other [OTHERMEDS]

Indicate whether the patient received any other medications (i.e., Digitalis, Antiplatelets, Diuretics or Lipid-lowering medications) within **24 hours** preceding surgery.

0 = No
1 = Yes

G. PREOPERATIVE HEMODYNAMICS AND CATH

72. Number of Diseased Vessels [NUMDISVES]

Indicate the number of major coronary systems (LAD system, Circumflex system, and/or Right system) with 50% narrowing in any angiographic view. NOTE: *Left Main disease (>=50%) is counted as TWO vessels (LAD and Circumflex). For example, left main and RCA would count as three total. Select one from the following:*

0 = None *(no significant coronary obstructive disease)*
1 = One
2 = Two
3 = Three
9 = Not documented/Unknown

73. Left Main Disease >=50% [LMDISEASE]

Indicate whether the patient has Left Main Coronary Disease. Left Main Coronary Disease is present when there is >=50% compromise of vessel diameter in any angiographic view.

0 = No
1 = Yes
9 = Not documented/Unknown

74. Ejection Fraction Done [EJDONEYN]

Indicate whether the Ejection Fraction was measured prior to the induction of anesthesia.

0 = No
1 = Yes

75. Ejection Fraction [EFPCT]

Indicate the percentage of the blood emptied from the ventricle at the end of the contraction. Use the most recent determination prior to intervention. Enter a percentage in the range of 1-99.

Valid values: 1-99. (If a range is given, take the mid-point and round up.)

76. Ejection Fraction Method [EJMETHOD]

Indicate how the Ejection Fraction measurement information was obtained.

1=LV Gram (Left Ventriculogram)
2=Radionuclide:
3=Estimate (based upon available clinical data)
4=ECHO
5=MRI
6=Other

H. OPERATIVE PROCEDURE

77. Surgeon Last Name [SURGLNAME]

Enter the surgeon's last name.

78. Surgeon First Name [SURGFNAME]

Enter the surgeon's first name.

79. Surgeon Middle Initial [SURGMI]

Enter the surgeon's middle initial.

80. Surgeon License Number [SURLIC]

Enter the 10-digit surgeon's license number starting with MA or MB as

MA_ _ _ _ _ _ _ _ or MB_ _ _ _ _ _ _ _ (e.g., MA01234567).

81. Status (Urgency) of Procedure [PREOPSTAT]

Indicate the status that best describes the clinical status of the patient at the time of surgery.

1=Elective: The patient's cardiac function has been stable in the days or weeks prior to the operation. The procedure could be deferred without increased risk of compromised cardiac outcome.

2=Urgent: ALL of the following conditions are met:
-Not elective status.
-Not emergent status.
-Procedure required during same hospitalization in order to minimize chance of further clinical deterioration.
-Worsening, sudden chest pain, CHF, AMI, anatomy, IABP, Unstable Angina (USA) with IV nitroglycerin (NTG) or rest angina may be included.

3=Emergent: The patient's clinical status includes any of the following:

a) Ischemic dysfunction (any of the following):
-Ongoing ischemia including rest angina despite maximal medical therapy (medical and/or IABP);
-Acute Evolving MI within 24 hours before surgery; or
-Pulmonary edema requiring intubation.

b) Mechanical dysfunction (either of the following):
-Shock with circulatory support.
-Shock without circulatory support

4=Emergent Salvage: The patient is undergoing CPR en route to the Operating Room or prior to anesthesia induction.

82. Urgent Reason [URGREASON]

Delay in the operation is necessitated only by attempts to improve the patient's condition, availability of a spouse or parent for informed consent, availability of blood products, or the availability of results of essential laboratory procedures or test. Indicate which one of the following applies as the reason why the patient had Urgent Status? (Select one)

1 = Acute myocardial infarction (AMI)
2 = IABP
3 = Worsening, sudden chest pain
4 = Congestive Heart Failure (CHF)
5 = Coronary Anatomy
6 = Unstable angina (USA) with intravenous nitroglycerin (NTG)
7 = Rest angina
8 = Valve Dysfunction
9 = Aortic Dissection
10 = Angiographic Accident
11 = Cardiac Trauma
12 = Infected Device
13 = Syncope
14 = PCI/CABG Hybrid
15 = PCI Failure w/o clinical deterioration
16 = Aortic Aneurysm
17 = Device Failure
18 = Diagnostic/Interventional Procedure Complication
19 = Endocarditis
20 = Failed Transcatheter Valve Therapy
21 = Intracardiac Mass or Thrombus
22 = Ongoing Ischemia
23 = PCI or attempted PCI with Clinical Deterioration
24 = Pulmonary Edema
25 = Pulmonary Embolism
26 = Shock Circulatory Support
27 = Shock No Circulatory Support
28 = Transplant
29 = Other

83. Emergent Reason [EMEREASON]

Patients requiring emergency operations will have ongoing, refractory (difficult, complicated, and/or unmanageable) unrelenting cardiac compromise, with or without hemodynamic instability, and not responsive to any form of therapy except cardiac surgery. An emergency operation is one in which there should be no delay in providing operative intervention.

Indicate which of the following applies as the reason why the patient had Emergent Status? (Select one)

1 = Shock Circ Supp (Shock with circulatory support)
2 = Shock No Circ Supp (Shock no circulatory support)
3 = Pulmonary Edema (Pulmonary edema requiring intubation)
4 = AEMI (Acute Evolving MI within 24 hours before surgery)
5 = Ongoing Ischemia (Ongoing ischemia, including rest angina despite maximal medical therapy (medical and/or IABP)
6 = Valve Dysfunction
7 = Aortic Dissection
8 = Angiographic Accident
9 = Cardiac Trauma
10 = Infected Device
11 = Syncope
12 = PCI/CABG Hybrid
13 = Anatomy
14 = Aortic Aneurysm
15 = Congestive Heart Failure
16 = Device Failure
17 = Diagnostic/Interventional Procedure Complication
18 = Endocarditis
19 = Failed Transcatheter Valve Therapy
20 = IABP
21 = Intracardiac Mass or Thrombus
22 = PCI Incomplete without Clinical Deterioration
23 = PCI or attempted PCI with Clinical Deterioration
24 = Pulmonary Embolism
25 = Rest Angina
26 = Transplant
27 = Unstable Angina
28 = Worsening Chest Pain
29 = Other

84. Operative Category [OPERCAT]

Indicate the type of cardiac surgery that was performed on the patient.

1 = CAB
2 = CAB + Valve
3 = CAB + Other
4 = CAB + Valve + Other
5 = Valve
6 = Valve + Other
7 = Other

85. Robotic Technology Used [ROBOTIC]

Indicate whether the cardiac surgery was assisted by robotic technology.

0 = No
1 = Yes

86. Minimally Invasive Incision Attempted [MININVASE]:

Was a minimally invasive incision done or attempted? This includes a variety of approaches, which are in some way less invasive than the traditional median sternotomy with full cardiopulmonary bypass and cardioplegic arrest. It may involve either more limited surgical incision(s), less invasive or no cardiopulmonary bypass, or a beating heart. All procedures started as minimally invasive should be included, even if they were converted to a standard approach.

0 = No
1 = Yes

Note: this definition is different from the STS definition.

87. Converted to Standard Incision [STD_OHS]:

Indicate whether the minimally invasive incision was converted to a full median sternotomy.

0 = No
1 = Yes

88. CPB Utilization [CPBYN]

Indicate the level of Cardiopulmonary Bypass (CPB) or coronary perfusion used during the surgical procedure?

0 = None
1 = Combination
2 = Full

89. Perfusion Time [CPBPERF]

Indicate the perfusion time in minutes. Perfusion time is defined as an accumulated total of CPB and/or coronary perfusion assist minutes.

_____ minutes.

90. Aortic Occlusion [AORTOCCYN]

Indicate the type of aortic occlusion used. Indicate the highest level of occlusion.

0 = None (includes beating heart and fibrillating heart)
1 = Aortic Crossclamp (Highest)
2 = Balloon Occlusion
3 = Partial Crossclamp (Lowest)

91. Crossclamp Time or Balloon Occlusion Time [CROSSTIME]

Indicate the total number of minutes the aorta is completely crossed-clamped during bypass. Minutes should not be recorded if partial crossclamp is the highest level of occlusion.

_____ minutes.

92. Cardioplegia [CARDIOPLEG]

Indicate whether cardioplegia was used.

0 = No
1 = Yes

93. Intra Aortic Balloon Pump [IABP]

Indicate whether the patient was placed on Intra-aortic balloon pump (IABP).

0 = No
1 = Yes

94. IABP When Inserted [IABPWHEN]

Indicate the time of the earliest IAPB insertion. Choose one of the following:

1 = Preoperatively
2 = Intraoperatively
3 = Postoperatively

95. IABP Indication [IABPIND]

Indicate the PRIMARY reason for inserting the IABP: Choose one of the following:

1 = Hemodynamic instability (Hypotension/shock)
2 = Procedural support
3 = Unstable angina
4 = Cardiopulmonary bypass (CPB) weaning failure
5 = Prophylactic
6 = Other

96. Blood Products Used [BLOODPROD]

Indicate whether blood products were transfused anytime intraoperatively (i.e. any blood product use that started inside of the OR) during the initial surgery.

0 = No
1 = Yes

I. CORONARY BYPASS

97. Number of Distal Anastomoses With Arterial Conduits [ANASTART]

Indicate the total number of distal anastomoses with arterial conduits, whether IMA, GEPA, radial artery, etc.

_____ (Valid values are 0 - 9)

98. Number of Distal Anastomoses with Venous Conduits [ANASTVEIN]

Indicate the total number of distal anastomoses with venous conduits, e.g. saphenous veins.

_____ (Valid values are 0 - 9)

99. Number of IMA Distal Anastomoses [IMADIST]

Indicate the total number of distal anastomoses done using internal mammary artery (IMA) grafts.

_____ (Valid values are 0 - 6)

100. Number of Radial Artery Distal Anastomoses [RADDISTL]

Indicate the total number of distal anastomoses done using radial artery grafts.

_____ (Valid values are 0 - 6)

101. Number of GEPA Distal Anastomoses [GEPAANAST]

Indicate the total number of distal anastomoses done using gastro-epiploic artery grafts.

_____ (Valid values are 0 - 6)

102. Number of Other Arterial Anastomoses [OTHARTANAST]

Indicate the total number of other arterial distal anastomoses that were used, other than radial, GEPA or IMA.

_____ (Valid values are 0 - 6)

J. VALVE SURGERY

103. Aortic Procedure [AVPROC]

Indicate whether a surgical procedure was done or not done on the Aortic Valve. Select one of the following:

0 = No
1 = Replacement (excluding TAVR)
2 = Repair/Reconstruct
3 = Root Reconstruction with Valve Conduit
4 = Replacement + aortic graft conduit (not a valve conduit)
5 = Root Reconstruction with Valve Sparing (includes reimplantation and remodeling)
6 = Resuspension Aortic Valve with replacement of ascending Aorta
7 = Resuspension Aortic Valve without replacement of ascending Aorta
8 = Resection Sub-Aortic Stenosis
9 = Apico-aortic conduit
10 = Autograft with Pulmonary Valve-Ross procedure
11 = Homograft
12 = Transcatheter AV Replacement (TAVR)

104. Mitral Procedure [MVPROC]

Indicate whether a surgical procedure was done or not done on the Mitral Valve. Select one of the following:

0 = No
1 = Annuloplasty only
2 = Replacement (excluding Transcatheter)
3 = Reconstruction with Annuloplasty
4 = Reconstruction without Annuloplasty
5 = Transcatheter Replacement

105. Tricuspid Procedure [TVPROC]

Indicate whether a surgical procedure was done or not done on the Tricuspid Valve. Select one of the following:

0 = No
1 = Annuloplasty only
2 = Replacement (excluding Transcatheter)
3 = Reconstruction with Annuloplasty
4 = Reconstruction without Annuloplasty
5 = Valvectomy
6 = Transcatheter Replacement

106.Pulmonic Procedure [PVPROC]

Indicate whether a surgical procedure was done on the Pulmonic Valve. Select one of the following:

0 = No
1 = Replacement (excluding Transcatheter)
2 = Repair/Reconstruction
3 = Valvectomy
4 = Transcatheter Replacement

K. OTHER PROCEDURES

107. Left Ventricular Aneurysm Repair [LVA]

Indicate whether the patient had a Left Ventricular Aneurysm (LVA) Repair either in conjunction with or as the primary surgical procedure.

0 = No
1 = Yes

108. Ventricular Septal Defect Repair [VSD]

Indicate whether the patient had a Ventricular Septal Defect (VSD) Repair either in conjunction with or as the primary surgical procedure.

0 = No
1 = Yes

109. Atrial Septal Defect Repair [ASD]

Indicate whether the patient had an Atrial Septal Defect (ASD) Repair either in conjunction with or as the primary surgical procedure.

0 = No
1 = Yes

110. Surgical Ventricular Restoration [SVR]

Indicate whether the patient had a Surgical Ventricular Restoration (SVR) either in conjunction with or as the primary surgical procedure. Surgical Ventricular Restorations are procedures that restore the geometry of the heart after an anterior MI and include the Dor procedure or the SAVER procedure. The SVR procedure is distinct from an anterior left ventricular aneurysmectomy (LVA) and from a Batista procedure (left ventricular volume reduction procedure).

0 = No
1 = Yes

111. Congenital Defect Repair [CONGEN]

Indicate whether the patient had a congenital defect repair either in conjunction with or as the primary surgical procedure.

0 = No
1 = Yes

112. Transmyocardial Laser Revascularization [TMR]

Indicate whether the patient underwent the creation of multiple channels in the left ventricular myocardium with a laser fiber either in conjunction with or as the primary surgical procedure.

0 = No
1 = Yes

113. Cardiac Trauma Repair [TRAUMA]

Indicate whether the patient had a surgical procedure for an injury due to Cardiac Trauma either in conjunction with or as the primary surgical procedure.

0 = No
1 = Yes

114. Cardiac Transplant [HTTX]

Indicate whether the patient had a Heterotopic or Orthotopic heart transplantation either in conjunction with or as the primary surgical procedure.

0 = No
1 = Yes

115. Pacemaker [PACER]

Indicate whether an internal electronic generator that controls heart rate was surgically placed either in conjunction with or as the primary surgical procedure.

0 = No
1 = Yes

116. Automatic Implanted Cardioverter Defibrillator [AICD]

Indicate whether an internal device that defibrillates the heart was surgically placed either in conjunction with or as the primary surgical procedure.

0 = No
1 = Yes

117. Atrial Fibrillation Correction Surgery [AFCS]

Indicate if one of the following atrial fibrillation correction surgeries was performed either in conjunction with or as the primary surgical procedure. The intent of both surgeries is to preclude the atria from fibrillating by disrupting the abnormal reentry pathways of electronic signals that lead to atrial fibrillation.

Standard Surgical maze Procedure: Surgical Procedure in which full thickness incisions are made in the atria of the heart. Sutures are then used to re-approximate the incised tissue. The resulting lesion disrupts the abnormal reentry pathways of electronic signals that lead to atrial fibrillation.

Other Surgical Ablative Procedure: Surgical Procedures in which lesions are created in the atria of the heart by energy source. The lesion disrupts the abnormal reentry pathways of electronic signals that lead to atrial fibrillation.

0 = None
1 = Standard Surgical maze Procedure
2 = Other Surgical Ablative Procedure
3 = Combination of standard and Other Procedure
4 = Left Atrial Appendage Ligation/Removal

118. Aortic Aneurysm/Dissection Repair [AADR]

Indicate whether the patient underwent an Aortic Aneurysm repair either in conjunction with or as the primary surgical procedure. This includes dissections, non-dissections and ruptures of the Aorta.

0 = No
1 = Yes

119. Other Cardiac Procedure [OTHRCARD]

Indicate whether the patient had another cardiac procedure performed either in conjunction with or as the primary surgical procedure that is not included within this section.

0 = No
1 = Yes

120. Carotid Endarterectomy [ENDART]

Indicate whether the patient underwent surgical removal of stenotic atheromatous plaque or placement of carotid stent in conjunction with the primary surgical procedure.

0 = No
1 = Yes

121. Other Vascular [OTHRVASC]

Indicate whether the patient had procedures treating peripheral vascular disease in conjunction with the primary surgical procedure. This may include transcatheter replacements.

0 = No
1 = Yes

122. Other Thoracic Procedure [OTHRTHOR]

Indicate whether the patient underwent procedures involving the Thorax/Pleura in conjunction with the primary surgical procedure.

0 = No
1 = Yes

123. VAD [LVAD]

Indicate whether the patient had a Left Ventricular Assist Device (LVAD), a Right Ventricular Assist Device (RVAD) or a BiVentricular Assist Device (BiVAD) implanted.

0 = None
1 = LVAD
2 = RVAD
3 = BiVAD

124. Other Non-cardiac [OTHNONC]

Indicate whether the patient had any other non-cardiac procedure was performed in conjunction with the primary surgical procedure that is not included within this section.

0 = No
1 = Yes

L. IN-HOSPITAL COMPLICATIONS

Operative:

125. ReOp Bleed/Tamponade [CBLEED]

Indicate whether an operative re-intervention was required for bleeding/tamponade.

0 = No
1 = Yes

126. ReOp Valve Dysfunction [CVALVE]

Indicate whether an operative re-intervention was required for valve dysfunction.

0 = No
1 = Yes

127. ReOp Graft Occlusion [CGRAFT]

Indicate whether an operative re-intervention was required for coronary graft occlusion.

0 = No
1 = Yes

128.ReOp Other Cardiac Reasons [COTHCARD]

Indicate whether an operative re-intervention was required for other cardiac reasons.

0 = No
1 = Yes

129.ReOp Other Non-Cardiac Reasons [CNONCARD]

Indicate whether an operative re-intervention was required for other non-cardiac reasons. This includes procedures requiring a return to the operating room such as tracheostomy, hematoma evacuation, and procedures that address the sternum. This does not include procedures performed outside the OR such as GI Lab for peg tube, shunts for dialysis, etc.

0 = No
1 = Yes

130.Peri-operative MI [COPMI]

(0-24 hours post-op)
Indicate the presence of a peri-operative MI (0-24 hours post-op) as documented by the following criteria:

The CK-MB (or CK if MB not available) must be >= 5 times the upper limit of normal, with or without new Q-waves present in two or more contiguous ECG leads. No symptoms required.

(> 24 hours post-op)
Indicate the presence of a peri-operative MI (>24 hours post-op) as documented by at least one of the following criteria:

1. Evolutionary ST - segment elevations
2. Development of new Q-waves in two or more contiguous ECG leads
3. New or presumably new LBBB pattern on the ECG
4. The CK-MB (or CK if MB not available) must be >= 3 times the upper limit of normal.

Because normal limits of certain blood tests may vary, please check with your lab for normal limits for CK-MB and total CK.

0 = No
1 = Yes

Infection

131. Sternal Deep - Infection [CSTERNAL]

Indicate whether the patient had a Deep Sternal infection involving muscle, bone, and/or mediastinum REQUIRING OPERATIVE INTERVENTION.
Must have all of the following conditions:

1. Wound opened with excision of tissue (I&D) or re-exploration of mediastinum
2. Positive culture
3. Treatment with antibiotics

0 = No
1 = Yes

132. Thoracotomy - Infection [CTHORAC]

Indicate whether the patient had an infection involving a thoracotomy or parasternal site.
Must have ONE of the following conditions:

1. Wound opened with excision of tissue (I&D).
2. Positive culture
3. Treatment with antibiotics

0 = No
1 = Yes

133. Leg - Infection [CLEG]

Indicate whether the patient had an infection involving a leg vein harvest site. Must have ONE of the following conditions:

1. Wound opened with excision of tissue (I&D)
2. Positive culture
3. Treatment with antibiotics

0 = No
1 = Yes

134. Septicemia - Infection [CSEPT]

Indicate whether the patient had Septicemia (requires positive blood cultures) postoperatively.

0 = No
1 = Yes

135. Infection-UTI [CUTI]

Indicate whether the patient had a Urinary Tract Infection (positive urine cultures) postoperatively.

0 = No
1 = Yes

Neurologic

136. Permanent Stroke - Neurologic [CPSTROKE]

Indicate whether the patient had a central neurologic deficit persisting postoperatively for > 24 hours

0 = No
1 = Yes

137. Transient Stroke - Neurologic - [CTSTROKE]

Indicate whether the patient had a posoperatively transient neurologic deficit (Transient Ischemic Attack (TIA) recovery within 24 hours.

0 = No
1 = Yes

138. Post-Op Coma/Encephalopathy – Neurologic [CCOMA]

Indicate whether the patient developed a postoperative coma and/or encephalopathy.

0 = No
1 = Yes

Pulmonary

139. Prolonged Vent - Pulmonary [CVENT]

Indicate whether the patient had Pulmonary Insufficiency requiring ventilator. Include (but not limited to) causes such as ARDS and pulmonary edema and/or any patient requiring mechanical ventilation > 24 hours postoperatively.

0 = No
1 = Yes

140. Pulmonary Embolism - Pulmonary [CEMB]

Indicate whether the patient had a Pulmonary Embolism diagnosed by study such as V/Q scan, angiogram, or spiral CT.

0 = No
1 = Yes

141. Pneumonia - Pulmonary [CPNEU]

Indicate whether the patient had Pneumonia diagnosed by any of the following: positive cultures of sputum, transtracheal fluid, bronchial washings, and/or clinical findings consistent with the diagnosis of Pneumonia. May include chest X-ray diagnostic of pulmonary infiltrates.

0 = No
1 = Yes

Renal

142. Renal Failure [CRENAL]

Indicate whether the patient had acute or worsening renal failure resulting in one or more of the following:

1. Increase of serum creatinine to > 4.0 mg/dL and 3x most recent preoperative creatinine level.
2. A new requirement for dialysis post-operatively

0 = No
1 = Yes

143. Dialysis [CDIALYSIS]

Indicate whether the patient had a new requirement for dialysis postoperatively. If the patient had renal failure, indicate whether the patient required a new institution of renal dialysis. (This may include either hemo or peritoneal dialysis.)

0 = No
1 = Yes

Vascular

144. Vascular-Illiac/Femoral Dissection [CILLIAC]

Indicate whether the patient had a dissection occurring in the iliac or femoral arteries.

0 = No
1 = Yes

145. Vascular-Acute Limb Ischemia [CLIMB]

Indicate whether the patient had any complication producing limb ischemia. This may include upper or lower limb ischemia.

0 = No
1 = Yes

Other

146. Rhythm Disturbance Requiring Permanent Device - Other [CHEARTBLK]

Indicate whether the patient developed a new dysrhythmia requiring the insertion of a permanent device prior to discharge.

0 = No
1=Pacemaker
2=ICD
3=Pacemaker/ICD
4=Other

147. Cardiac Arrest - Other [CCARDARST]

Indicate whether the patient had a cardiac arrest documented by one of the following:

1. Ventricular fibrillation
2. Rapid ventricular tachycardia with hemodynamic instability
3. Asystole

0 = No
1 = Yes

148. Anticoagulant – Other [CANTICOAG]

Indicate whether the patient had bleeding, hemorrhage, and/or embolic events related to anticoagulant therapy postoperatively. This may include patients who experience Dissiminated Intravascular Coagulopathy (DIC) or Heparin Induced Thrombocytpenia (HIT).

0 = No
1 = Yes

149.Tamponade - Other [CTAMP]

Indicate whether the patient had fluid in the pericardial space compromising cardiac filling, and requiring intervention other than returning to the OR such as pericardialcentesis. This should be documented by either:

- echo showing pericardial fluid and signs of tamponade such as right heart compromise
- systemic hypotension due to pericardial fluid compromising cardiac function

0 = No
1 = Yes

150. GI Complications – Other [CGICOMP]

Indicate whether the patient had a postoperative occurrence of any GI complication including:

a. GI bleeding requiring transfusion
b. Pancreatitis with abnormal amylase/lipase requiring naso-gastric (NG) suction therapy
c. Cholecystitis requiring cholecystectomy or drainage
d. Mesenteric ischemia requiring exploration
e. Other GI complication

0 = No
1 = Yes

151. Multi System Failure - Other [CMSF]

Indicate whether the patient had two or more major organ systems suffer compromised functions. (Major organ systems refer to neurological, renal, pulmonary, cardiac, vascular or systemic.)

0 = No
1 = Yes

152. A-Fib/Flutter - Other [CAFIB]

Indicate whether the patient had a new onset of atrial fibrillation/flutter (AF) requiring treatment. Does not include recurrence of AF which had been present preoperatively.

0 = No
1 = Yes

153. Aortic Dissection - Other [CAORTIC]

Indicate if the patient had a dissection occurring in any part of the aorta

0 = No
1 = Yes

154. Other complication – Other [COTHCOMP]

Indicate whether a postoperative complication occurred that is not identified in this section yet impacts hospital length of stay and/or outcome.

0 = No
1 = Yes

155. Name of Complication Not Listed [COTHSPEC]

If there was a complication not identified in the provided list in this section, specify the complication.

_____ (Name of specified complication)

M. MORTALITY

156. Discharge Status [MORTALITY]

Indicate whether the patient was alive or dead at discharge from the hospitalization in which surgery occurred.

1=Alive
2=Dead

157. Mortality Date [DATEDEATH]

Indicate the date the patient was diagnosed clinically dead.

____ / ____ / _____
MM / DD / YYYY

158. Location of Death [DEATHWHERE]

Indicate the patient's location at the time of death by selecting one of the following:

1 = OR during Initial Surgery
2 = Hospital
3 = Home
4 = Other Care Facility
5 = OR During re-operation
6 = Unknown
7 = Extended Care Facility
8 = Hospice
9 = Acute Rehab
10 = Other

159. Primary Cause of Death [CAUSEDEATH]

Indicate the Primary cause of death, i.e. the first significant abnormal event which ultimately led to death; choose one of the following:

1 = Cardiac
2 = Neurologic
3 = Renal
4 = Vascular
5 = Infection
6 = Pulmonary
7 = Valvular
8 = Other
9 = Unknown

160 Status 30 Days after Surgery

If the patient was alive or dead at 30 days post surgery (whether in hospital or not).

1 = Alive
2 = Dead
3 = Unknown

END OF DEFINITIONS AND SPECIFICATIONS

APPENDIX I

Application Form for CABG Only Case Exclusion

Instructions:

1. Provide the Department with one blinded (hospital/health system name and physician names removed) and one unblinded copy (with identifiers) of the patient's records.
2. Fill out this form and attach the appropriate one to the blinded and the other appropriate one to the unblinded copy.
3. Include ALL documents listed below as well as a summary of why this case should be considered for exclusion. Only include what is relevant. DO NOT submit every single page of the patient's chart. **The Department has the right to dismiss cases that do not include all of the proper documents for review, or that have not been properly blinded.**

Check as applies:

☐ Unblinded Case (attach this form to unblinded copy)

☐ Blinded Case (attach this form to blinded copy)

Medical Record Number: _____ Case Number: _____
(Department use only)

Date of Surgery: _____ Date of Death: _____

Required documents that must be included in order to support your request:

-Cath Reports
-H & P Reports
-Discharge Summary
-Anesthesia Records
-OP Reports
-Other (Specify): _____

Reasons for Exclusion Request (attach additional pages if necessary):

_____

_____

_____

_____

_____

_____

APPENDIX II

Payor Classification

Item # 20. Payor

Indicate the primary payor as being Medicare, Medicaid, HMO, Blue Cross, Commercial, Self Pay, CHAMPUS, Uninsured or Other using the following classifications:

Medicare

Title XVII Part A Title XVII Part B

Medicaid

Title XIX

Health Maintenance Organizations (HMO)

Americaid Inc.
American Preferred Provider Plan Inc.
HIP/RHP of New Jersey
HMO Blue (Medigroup - Central)
HMO of PA/NJ (U.S. Health Care)
Aetna Health Plans of N.J. Inc.
CIGNA Health Plan of New Jersey
Metra Health Care Plan of Upstate New York
Prucare of New Jersey
Garden State Health Plan
HMO Blue Medigroup - Metro
HMO Blue Medigroup - North
HMO Blue Medigroup - South
HMO Blue Medigroup - Shore line
Metra Health Care Plan of New Jersey
NYL Care Health Plans of New Jersey Inc.
Oxford Health Plan
Sanus of New Jersey
CIGNA Health Plan of Southern N.J.
Greater Atlantic Health Services
Amerihealth HMO Inc.
Atlanticare Health Plan
Chubb Health Plan
Community Health Care and Development Corp.
First Option Health Plan
Harmony Health Plan
HMO Blue (BC/BS of NJ)
Liberty Health Plan
Managed Health Care Systems of New Jersey Inc.
Physician Health Care Plan of New Jersey
Physician Health Services of New Jersey Inc
University Health Plan Inc.
Other HMO

Appendix II
Payor Classification (Continued)

Blue Cross Plan

- Alaska
- Alabama
- Arizona
- Arkansas
- California
- Colorado
- Connecticut
- Delaware
- District of Columbia
- Florida
- Georgia
- Hawaii
- Idaho
- Illinois
- Indiana
- Iowa
- Kansas
- Kentucky
- Louisiana
- Maine
- Maryland
- Massachusetts
- Michigan
- Minnesota
- Mississippi
- Missouri
- Montana
- Nebraska
- Nevada
- New Hampshire
- New Jersey-All other groups
- New Jersey Non-Group Line of Business
- New Jersey FEP
  - Garden State
  - Host
- New Mexico
- New York
- North Carolina
- North Dakota
- Ohio
- Cleveland
- Oklahoma
- Oregon
- Pennsylvania
- Rhode Island
- South Carolina
- Tennessee
- Texas
- Utah
- Virginia
- Vermont
- Washington
- West Virginia
- Wisconsin
- Wyoming
- Puerto Rico
- Other Blue Cross

Appendix II
Payor Classification (Continued)

Commercial

AARP
Aetna
NJ Carpenters Health Fund
Connecticut General
Continental Assurance
Equitable
Guardian Life
Intercontinental
John Hancock
Massachusetts Mutual
Metropolitan Life
Mutual of Omaha
New York Life
Provident Alliance
Prudential
Travelers
Washington National Insurance
New Jersey Auto Dealers Association
Allstate
Mutual Life of New York
National Association of Letter Carriers
Local Union Insurance
Lincoln National
New Jersey Turnpike Authority
Rasmussen
Inter County Health Plan
American Postal Workers
Leader Administrators
Fred S. James (James Benefit)
Mail Handlers Benefit Plan
Other Commercial Insurance

Self Pay

Direct
Other Source of Patient Pay

Tricare (Formerly CHAMPUS)

Uninsured/Indigent

Charity Care

Appendix II
Payor Classification (Continued)

Other

- Department of Vocational Rehabilitation
- New Jersey State Health Benefits Plan
- Other Government
- Premier Preferred Care of New Jersey
- Union Insurance
- Personnel Health Program
- Magnet (Magna Care)
- Hospital Responsibility
- QualCare
- Other
  - No Fault
    - Allstate
    - New Jersey Manufacturers
    - State Farm
    - Other No Fault
  - Workers Compensation
    - Aetna
    - Insurance Company of North America
    - Liberty Mutual
    - Employers Mutual
    - New Jersey Manufacturers
    - Travelers
    - Other Workers Compensation

Appendix III

The New Jersey Department of Health Open Heart Surgery Risk Stratification Project Data Collection Form, Version 4.3

File Layout

ITEM NUMBER	FIELD DESCRIPTION	FIELD NAME	FIELD TYPE	ACCEPTABLE RESPONSE	FIELD WIDTH
A. DEMOGRAPHICS					
1	PATIENT'S LAST NAME	LNAME	TEXT	FULL LAST NAME	15
2	PATIENT'S FIRST NAME	FNAME	TEXT	FULL FIRST NAME	10
3	PATIENT'S MIDDLE INITIAL	MI	TEXT	MIDDLE INITIAL	1
4	PATIENT'S DATE OF BIRTH	DOB	DATE	MM/DD/YYYY	10
5	PATIENT'S GENDER	SEX	NUMERIC	0=MALE 1=FEMALE	1
6	PATIENT'S SOCIAL SECURITY NUMBER	SSNUM	TEXT	XXX-XX-XXXX	11
7	PATIENT'S MEDICAL RECORD NUMBER	MEDRECNO	TEXT	ENTER NUMBER AS PROVIDED	12
8	PATIENT'S RESIDENTIAL ZIP CODE	IP	TEXT	ENTER FIRST 5 DIGITS	5
9	RACE	RACE	NUMERIC	1=WHITE 2=BLACK 3=ASIAN 4=NATIVE AMERICAN/ALASKA NATIVE 5=HAWAIIAN/OTHER PACIFIC ISLANDER 6=OTHER 7=MULTIRACIAL	1
10	HISPANIC OR LATINO ORIGIN	HISPANIC	NUMERIC	0 = No 1 = Yes	1
11	REFERRING CARDIOLOGIST'S LAST NAME	CARDLNAME	TEXT	REFERRING CARDIOLOGIST'S LAST NAME	15
12	REFERRING CARDIOLOGIST'S FIRST NAME	CARDFNAME	TEXT	REFERRING CARDIOLOGIST'S FIRST NAME	10
13	REFERRING CARDIOLOGIST'S MI	CARDMI	TEXT	REFERRING CARDIOLOGIST'S MIDDLE INITIAL	1
15	REFERRING PHYSICIAN'S LAST NAME	REFLNAME	TEXT	REFERRING PHYSICIAN'S LAST NAME	15
16	REFERRING PHYSICIAN'S FIRST NAME	REFFNAME	TEXT	REFERRING PHYSICIAN'S FIRST NAME	10
17	REFERRING PHYSICIAN'S MI	REFMI	TEXT	REFERRING PHYSICIAN'S MIDDLE INIT	1
B. HOSPITILIZATION					
18	HOSPITAL CODE	PRESHOSP	NUMERIC	USE HOSPITAL CODE PG	4
19	PREVIOUS FACILITY	TXFROM	NUMERIC	SEE CODES PG	4
20	PAYOR OR INSURER	INSURER	NUMERIC	1=BLUE CROSS 2=COMMERCIAL 3=HMO 4=MEDICAID 5=MEDICARE 6=SELF-PAY 7=TRICARE(CHAMPUS) 8=UNINSURED/INDIGENT 9=OTHER	1
21	DATE OF ADMISSION	DATEADMIN	DATE	MM/DD/YYYY	10

Appendix III
File Layout (Continued)

ITEM NUMBER	FIELD DESCRIPTION	FIELD NAME	FIELD TYPE	ACCEPTABLE RESPONSE	FIELD WIDTH
22	DATE OF OPERATION OR SURGERY	DATEOPERA	DATE	MM/DD/YYYY	10
23	DATE OF DISCHARGE	DATEDC	DATE	MM/DD/YYYY	10
24	PLACE PATIENT WAS DISCHARGED TO	DCWHERE	NUMERIC	0 = NoT DISCHARGED 1=HOME 2=OTHER ACUTECARE 3=REHAB/SUBACUTE/LTAC 4=NURSING HOME 5=OTHER 6=DECEASED 7=LEFT AMA 8=HOSPICE 9=UNKNOWN	1
C. PREOPERATIVE RISK FACTORS					
25	WEIGHT IN KILOGRAMS	WT	NUMERIC	_____ KGS (RANGE 10.0-250.0)	4
26	HEIGHT IN CENTEMETERS	HT	NUMERIC	_____ CMS (RANGE 20.0-251.0)	4
27	EVER SMOKER	SMOKEREVER	NUMERIC	0 = No 1 = Yes	1
28	CURRENT SMOKER	SMOKERCURR	NUMERIC	0 = No 1 = Yes	1
29	DIABETES	DIABETES	NUMERIC	0 = No 1 = Yes	1
30	DIABETES CONTROL	DIABCONT	NUMERIC	0 = NONE 1=DIET 2=ORAL 3=INSULIN 4=OTHER/OTHER SUBQ	1
31	DYSLIPIDEMIA	DYSLIPIDEMIA	NUMERIC	0 = No 1 = Yes	1
32	DYSLIPIDEMIA CONTROL	DYSLIPCONT	NUMERIC	0 = NONE 1=STATIN 2=NON-STATIN 3=BOTH	1
33	LAST CREATININE LEVEL PRIOR TO SURGERY	CREATININE	NUMERIC	NUMBER WITH 1 DECIMAL	4
34	RENAL FAILURE	RENAL	NUMERIC	0 = No 1 = Yes	1
35	DIALYSIS	DIALYSIS	NUMERIC	0 = No 1 = Yes	1
36	HYPERTENSION	HYPERTEN	NUMERIC	0 = No 1 = Yes	1
37	CEREBROVASCULAR ACCIDENT	CVA	NUMERIC	0 = No 1 = Yes	1
38	CEREBROVASCULAR ACCIDENT WHEN	CVAWHEN	NUMERIC	1=RECENT ≤ 30 DAYS 2=REMOTE > 30 DAYS	1
39	CEREBROVASCULAR DISEASE	CVD	NUMERIC	0 = No 1 = Yes	1
40	CEBREBROVASCULAR DISEASE TYPE	CVDTYPE	NUMERIC	0=NONE 1=COMA 2=CVA 3=RIND 4=TIA 5=NON-INVASIVE >79% 6=PRIOR CAROTID SURGERY 7=MODERATE DISEASE 50-79%	1
41	INFECTIOUS ENDOCARDITIS	ENDOCARD	NUMERIC	0 = No 1 = Yes	1
42	ENDOCARDITIS TYPE	ENDOTYPE	NUMERIC	1=TREATED 2=ACTIVE	1
43	CHRONIC LUNG DISEASE	LUNGDIS	NUMERIC	0 = No 1=MILD 2=MODERATE 3=SEVERE 4=SEVERITY UNKNOWN	1
44	IMMUNOSUPPRESSIVE THERAPY	IMMUNOSUP	NUMERIC	0 = No 1 = Yes	1
45	PERIPHERAL VASCULAR DISEASE	PVD	NUMERIC	0 = No 1 = Yes	1
D. PREVIOUS CV INTERVENTIONS					

Appendix III
File Layout (Continued)

ITEM NUMBER	FIELD DESCRIPTION	FIELD NAME	FIELD TYPE	ACCEPTABLE RESPONSE	FIELD WIDTH
46	INCIDENCE	INCIDENCE	NUMERIC	1=FIRST CV SURGERY 2=FIRST RE-OPERATION 3=SECOND RE-OPERATION 4=THIRD RE-OPERATION 5=FOUR OR MORE RE-OPERATIONS	1
47	PRIOR PCI	PRIORPCI	NUMERIC	0 = No 1 = Yes	1
48	PCI INTERVAL	PCIINTERV	NUMERIC	1=<=6 HOURS 2=>6 HOURS	1
E. PREOPERATIVE CARDIAC STATUS					
49	MYOCARDIAL INFARCTION	MIYN	NUMERIC	0 = No 1 = Yes	1
50	MYOCARDIAL INFARCTION WHEN	MIWHEN	NUMERIC	1=<=6HRS 2=>6HR BUT<24HRS 3= 1-7 DAYS 4= 8-21 DAYS 5= >21 DAYS	1
51	CONGESTIVE HEART FAILURE	CHF	NUMERIC	0 = No 1 = Yes	1
52	ANGINA	ANGINAYN	NUMERIC	0 = No 1 = Yes	1
53	ANGINA TYPE	ANGINATYPE	NUMERIC	1=STABLE 2=UNSTABLE	1
54	CARDIOGENIC SHOCK	CARDIOGEN	NUMERIC	0 = No 1 = Yes AT TIME OF PROC 2=YES NOT AT PROC BUT <24 HOURS	1
55	CARDIOGENIC SHOCK TYPE	SHOCKTYPE	NUMERIC	1=REFRACTORY 2=HEMODYNAMIC INSTABILITY	1
56	RESUSCITATION	RESUSCIT	NUMERIC	0 = No 1= <1 HOUR 2= >1 HOUR BUT <24 HOURS	1
57	ARRHYTHMIA	ARRHYTH	NUMERIC	0 = No 1=RECENT ≤ 30 DAYS 2=REMOTE > 30 DAYS	1
58	ARRHYTHMIA TYPE	ARRHYTHTYPE	NUMERIC	0 = NoNE 1=SUST VT/VF 2=HEART BLOCK 3=AFIB/FLUTTER 4=SICK SINUS SYNDROME	1
59	NYHA CLASSIFICATION	NYHA	NUMERIC	1 - 4	1
F. PREOPERATIVE MEDICATIONS					
60	BETA BLOCKERS	BETABLKR	NUMERIC	0 = No 1 = Yes 2=CONTRAINDICATED	1
61	ACE INHIBITORS/ARBS	ACEINHIB	NUMERIC	0 = No 1 = Yes	1
62	NITRATES-IV	NITRATEIV	NUMERIC	0 = No 1 = Yes	1
63	ANTICOAGULANTS	ANTICOAG	NUMERIC	0 = No 1 = Yes	1
64	ANTICOAGULANT MEDICATION TYPE	ANTICOAGTYPE	NUMERIC	1=UNFRACTIONATED HEPARIN 2=LOW MOLECULAR HEPARIN 3=THROMIBIN INHIBITORS 9=OTHER	1
65	COUMADIN	COUMADIN	NUMERIC	0 = No 1 = Yes	1
66	INOTROPES	INOTROPES	NUMERIC	0 = No 1 = Yes	1
67	STEROIDS	STEROIDS	NUMERIC	0 = No 1 = Yes	1
68	ASPIRIN	ASPIRIN	NUMERIC	0 = No 1 = Yes	1
69	ADP INHIBITOR	ADPINHIB	NUMERIC	0 = No 1 = Yes	1
70	GLYCOPROTEIN (IIB IIIA INIBITORS)	GLYCO	NUMERIC	0 = No 1 = Yes	1
71	OTHER	OTHERMEDS	NUMERIC	0 = No 1 = Yes	1

Appendix III
File Layout (Continued)

ITEM NUMBER	FIELD DESCRIPTION	FIELD NAME	FIELD TYPE	ACCEPTABLE RESPONSE	FIELD WIDTH
G. PREOPERATIVE HEMODYNAMICS & CATH					
72	NUMBER OF DISEASED VESSELS	NUMDISVES	NUMERIC	0 = NONE 1=ONE 2=TWO 3=THREE 9=NOT DOC/UNKNOWN	1
73	LEFT MAIN DISEASE	LMDISEASE	NUMERIC	0 = No 1 = Yes 9=NOT DOC/UNKNOWN	1
74	EJECTION FRACTION DONE	EJDONEYN	NUMERIC	0 = No 1 = Yes	1
75	EJECTION PERCENT	EFPCT	NUMERIC	1-99	3
76	EJECTION FRACTION METHOD	EJMETHOD	NUMERIC	0 = NONE 1=LVGRAM 2=RADIONUCLIDE 3=ESTIMATE 4=ECHO 5=MRI 6=OTHER	1
H. OPERATIVE PROCEDURE					
77	SURGEON'S LAST NAME	SURGLNAME	TEXT	SURGEON'S LAST NAME	15
78	SURGEON'S FIRST NAME	SURGFNAME	TEXT	SURGEON'S FIRT NAME	10
79	SURGEON'S MIDDLE INIT	SURGMI	TEXT	SURGEON'S MIDDLE INITIAL	3
80	SURGEON'S LICENSE NUMBER	SURLIC	TEXT	SURGEON'S LICENSE NUMBER	10
81	STATUS OF PROCEDURE	PREOPSTAT	NUMERIC	1=ELECTIVE 2=URGENT 3=EMERGENT 4=EMERGENT SALVAGE	1
82	URGENT REASON	URGREASON	NUMERIC	1=AMI 2=IABP 3=WORSENING CP 4=CHF 5=ANATOMY 6=USA 7=REST ANGINA 8=VALVE DYSFUNCTION 9=AORTIC DISSECTION 10=ANGIOGRAPHIC ACCIDENT 11=CARDIAC TRAUMA 12=INFECTED DEVICE 13=SYNCOPE 14=PCI/CABG HYBRID 15=PCI FAILURE W/O CLINICAL DETERIORATION 16=AORTIC ANEURYSM 17=DEVICE FAILURE 18=DIAG/INT PROC COMP 19=ENDOCARDITIS 20=FAILED TAVR 21=INTERCARDIAC MASS OR THROMBUS 22=ONGOING ISCHEMIA 23=PCI W/CILNICAL DETERIORATION 24=PULMONARY EDEMA 25=PULMONARY EMBOLISM 26=SHOCK CIRC. SUPPORT 27=SHOCK NO CIRC. SUPPORT 28=TRANSPLANT 29=OTHER	2

ITEM NUMBER	FIELD DESCRIPTION	FIELD NAME	FIELD TYPE	ACCEPTABLE RESPONSE	FIELD WIDTH
83	EMERGENT REASON	EMEREASON	NUMERIC	1=SHOCK CIRC SUPP 2=SHOCK NO CIRC SUPP 3=PULMONARY EDEMA 4=AEMI 5=ONGOING ISCHEMIA 6=VALVE DYSFUNCTION 7=AORTIC DISSECTION 8=ANGIOGRAPHIC ACCIDENT 9=CARDIAC TRAUMA 10=INFECTED DEVICE 11=SYNCOPE 12=PCI/CABG HYBRID 13=ANATOMY 14=AORTIC ANEURYSM 15=CONGESTIVE HEART FAILURE 16=DEVICE FAILURE 17=DIAG/INT PROC COMP 18=ENDOCARDITIS 19=FAILED TAVR 20=IABP 21=INTRADCARDIAC MASS OR THROMBUS 22=PCI FAILURE W/O CLINICAL DETERIORATION 23=PCI W/CLINICAL DETERIORATION 24=PULMONARY EMBOLISM 25=REST ANGINA 26=TRANSPLANT 27=UNSTABLE ANGINA 28=WORSENING CHEST PAIN 29=OTHER	2
84	OPERATIVE CATEGORY	OPERCAT	NUMERIC	1=CAB 2=CAB+VALVE 3=CAB+OTHER 4=CAB+VALVE+OTHER 5=VALVE 6=VALVE+OTHER 7=OTHER	1
85	ROBOTIC TECHNOLOGY USED	ROBOTIC	NUMERIC	0 = No 1 = Yes	1
86	MINIMALLY INVASIVE INCISION ATTEMPTED	MININVASE	NUMERIC	0 = No 1 = Yes	1
87	CONVERTED TO FULL	STD_OHS	NUMERIC	0 = No 1 = Yes	1
88	CPB UTILIZATION	CPBYN	NUMERIC	0 = NONE 1=COMBINATION 2=FULL	1
89	CPB PERFUSION TIME	CPBPERF	NUMERIC	_____ MINUTES	4
90	AORTIC OCCLUSION	AORTOCCYN	NUMERIC	0 = NoNE 1=AORTIC CROSSCLAMP 2=BALLOON OCCLUSION 3=PARTIAL CROSSCLAMP	1
91	CROSS/OCCLUSION	CROSSTIME	NUMERIC	_____ MINUTES	4
92	CARDIOPLEGIA	CARDIOPLEG	NUMERIC	0 = No 1 = Yes	1
93	IABP	IABP	NUMERIC	0 = No 1 = Yes	1
94	IABP WHEN	IABPWHEN	NUMERIC	1=PREOPERATIVELY 2=INTRAOPERATIVE 3=POSTOPERATIVE	1
96	BLOOD PRODUCTS	BLOODPROD	NUMERIC	0 = No 1 = Yes	1
I. CORONARY BYPASS					
97	ARTERIAL DISTAL ANASTOMOSES	ANASTART	NUMERIC	0-9	1

ITEM NUMBER	FIELD DESCRIPTION	FIELD NAME	FIELD TYPE	ACCEPTABLE RESPONSE	FIELD WIDTH
98	VENOUS DISTAL ANASTOMOSES	ANASTVEIN	NUMERIC	0-9	1
99	IMA DISTAL ANASTOMOSES	IMADIST	NUMERIC	0-6	1
100	RADIAL ARTERY ANASTOMOSES	RADDISTL	NUMERIC	0-6	1
101	GASTRO EPIPLOIC ARTERY GRAFTS	GEPAANAST	NUMERIC	0-6	1
102	OTHER ARTERIAL ANASTOMOSES	OTHARTANAST	NUMERIC	0-6	1
103	AORTIC PROCEDURE	AVPROC	NUMERIC	0=No 1=REPLACEMENT (EXCLUDING TAVR) 2=REPAIR/RECONSTRUCTION 3=ROOT RECONSTRUCTION WITH VALVE CONDUIT 4=REPLACEMENT + AORTIC GRAFT CONDUIT (NOT A VALVE CONDUIT) 5=ROOT RECONSTRUCTION WITH VALVE SPARING 6=RESUSPENSION AORTIC VALVE WITH REPLACEMENT OF ASCENDING AORTA 7=RESUSPENSION AORTIC VALVE WITHOUT REPLACEMENT OF ASCENDING AORTA 8=RESECTION SUB-AORTIC STENOSIS 9=APICO-AORTIC CONDUIT 10=AUTOGRAFT WITH PULMONARY VALVE-ROSS PROCEDURE 11=HOMOGRAFT 12=TAVR	2
J. VALVE SURGERY					
104	MITRIAL PROCEDURE	MVPROC	NUMERIC	0=No 1=ANNULOPLASTY ONLY 2=REPLACEMENT (EXCLUDING TRANSCATHETER) 3=RECONSTRUCTION WITH ANNULOPLASTY 4=RECONSTRUCTION WITHOUT ANNULOPLASTY 5=TRANSCATHETER REPLACEMENT	1
105	TRICUSPID PROCEDURE	TVPROC	NUMERIC	0=No 1=ANNULOPLASTY ONLY 2=REPLACEMENT (EXCLUDING TRANSCATHETER) 3=RECONSTRUCTION WITH ANNULOPLASTY 4=RECONSTRUCTION WITHOUT ANNULOPLASTY 5=VALVECTOMY 6=TRANSCATHETER REPLACEMENT	1
106	PULMONIC PROCEDURE	PVPROC	NUMERIC	0=No 1=REPLACEMENT (EXCLUDING TRANSCATHETER) 2=REPAIR/RECONSTRUCTION 3=VALVECTOMY 4=TRANSCATHETER REPLACEMENT	1

Appendix III
File Layout (Continued)

ITEM NUMBER	FIELD DESCRIPTION	FIELD NAME	FIELD TYPE	ACCEPTABLE RESPONSE	FIELD WIDTH
K. OTHER PROCEDURES					
107	LEFT VENT ANEURYSM	LVA	NUMERIC	0 = No 1 = Yes	1
108	VENT SEPTAL DEFECT	VSD	NUMERIC	0 = No 1 = Yes	1
109	ATRIAL SEPTAL DEFECT REPAIR	ASD	NUMERIC	0 = No 1 = Yes	1
110	SURGICAL VENTRICULAR RESTORATION	SVR	NUMERIC	0 = No 1 = Yes	1
111	CONGENTIAL DEFECT	CONGEN	NUMERIC	0 = No 1 = Yes	1
112	TRANSMYOCARDIAL LASER	TMR	NUMERIC	0 = No 1 = Yes	1
113	CARDIAC TRAUMA	TRAUMA	NUMERIC	0 = No 1 = Yes	1
114	CARDIAC TRANSPLANT	HTTX	NUMERIC	0 = No 1 = Yes	1
115	PACEMAKER	PACER	NUMERIC	0 = No 1 = Yes	1
116	AICD	AICD	NUMERIC	0 = No 1 = Yes	1
117	AFIB CORRECTION SURGERY	AFCS	NUMERIC	0=NONE 1=STANDARD SURGICAL MAZE PROCEDURE (MAZE) 2=OTHER SURGICAL ABLATIVE PROCEDURE (OTHER) 3=COMBINATION OF STANDARD AND OTHER PROCEDURE (COMBINATION) 4=LEFT ATRIAL APPENDAGE LIGATION/REMOVAL	1
118	AORTIC ANEURYSM	AADR	NUMERIC	0 = No 1 = Yes	1
119	OTHER CARDIAC	OTHRCARD	NUMERIC	0 = No 1 = Yes	1
120	CAROTID ENDARTERECTOMY	ENDART	NUMERIC	0 = No 1 = Yes	1
121	OTHER VASCULAR	OTHRVASC	NUMERIC	0 = No 1 = Yes	1
122	OTHER THORACIC	OTHRTHOR	NUMERIC	0 = No 1 = Yes	1
123	VAD	VAD	NUMERIC	0=NONE 1=LVAD 2=RVAD 3=BiVAD	1
124	OTHER NONCARDIAC	OTHNONC	NUMERIC	0 = No 1 = Yes	1
L. IN HOSPITAL COMPLICATIONS					
	OPERATIVE				
125	BLEEDING/TAMPONADE	CBLEED	NUMERIC	0 = No 1 = Yes	1
126	VALVULAR DYSFUNCTION	CVALVE	NUMERIC	0 = No 1 = Yes	1
127	GRAFT OCCLUSION	CGRAFT	NUMERIC	0 = No 1 = Yes	1
128	OTHER CARDIAC	COTHCARD	NUMERIC	0 = No 1 = Yes	1
129	NON-CARDIAC	CNONCARD	NUMERIC	0 = No 1 = Yes	1
130	PERIOPERATIVE MI	COPMI	NUMERIC	0 = No 1 = Yes	1
	INFECTION				
131	STERNAL-DEEP	CSTERNAL	NUMERIC	0 = No 1 = Yes	1
132	THORACOTOMY	CTHORAC	NUMERIC	0 = No 1 = Yes	1
133	LEG	CLEG	NUMERIC	0 = No 1 = Yes	1
134	SEPTICEMIA	CSEPT	NUMERIC	0 = No 1 = Yes	1
135	UTI	CUTI	NUMERIC	0 = No 1 = Yes	1
	NEUROLOGIC				

Appendix III
File Layout (Continued)

ITEM NUMBER	FIELD DESCRIPTION	FIELD NAME	FIELD TYPE	ACCEPTABLE RESPONSE	FIELD WIDTH
136	POSTOPERATIVE STROKE LONGER THAN 24 HRS	CPSTROKE	NUMERIC	0 = No 1 = Yes	1
137	TRANSIENT NEUROLOGIC DEFICIT	CTSTROKE	NUMERIC	0 = No 1 = Yes	1
138	COMA/ENCEPHALOPATHY	CCOMA	NUMERIC	0 = No 1 = Yes	1
	PULMONARY				
139	PROLONG VENTILATION	CVENT	NUMERIC	0 = No 1 = Yes	1
140	PULMONARY EMBOLISM	CEMB	NUMERIC	0 = No 1 = Yes	1
141	PNEUMONIA	CPNEU	NUMERIC	0 = No 1 = Yes	1
	RENAL				
142	RENAL FAILURE	CRENAL	NUMERIC	0 = No 1 = Yes	1
143	DIALYSIS	CDIALYSIS	NUMERIC	0 = No 1 = Yes	1
	VASCULAR				
144	ILLIAC/FEMORAL DISECTION	CILLIAC	NUMERIC	0 = No 1 = Yes	1
145	ACUTE LIMB ISCHEMIA	CLIMB	NUMERIC	0 = No 1 = Yes	1
	OTHER COMPLICATIONS				
146	HEARTBLOCK	CHEARTBLK	NUMERIC	0 = No 1=PACEMAKER 2=ICD 3=PACEMAKER/ICD 4=OTHER	1
147	CARDIAC ARREST	CCARDARST	NUMERIC	0 = No 1 = Yes	1
148	ANTICOAGULANT	CANTICOAG	NUMERIC	0 = No 1 = Yes	1
149	TAMPONADE	CTAMP	NUMERIC	0 = No 1 = Yes	1
150	GI COMPLICATION	CGICOMP	NUMERIC	0 = No 1 = Yes	1
151	MULTISYSTEM FAILURE	CMSF	NUMERIC	0 = No 1 = Yes	1
152	A-FIB/FLUTTER	CAFIB	NUMERIC	0 = No 1 = Yes	1
153	AORTIC DISSECTION	CAORTIC	NUMERIC	0 = No 1 = Yes	3
154	OTHER	COTHCOMP	NUMERIC	0 = No 1 = Yes	1
155	OTHER-SPECIFIED	COTHSPEC	TEXT	SPECIFIED COMPLICATION	20
M. MORTALITY					
156	DISCHARGE STATUS	MORTALITY	NUMERIC	1=ALIVE 2=DEAD	1
157	DATE DEATH	DATEDEATH	DATE	MM/DD/YYYY	10
158	LOCATION DEATH	DEATHWHERE	NUMERIC	1=OR DURING SURGERY 2=HOSPITAL 3=HOME 4=OTHER CARD FACILITY 5=OR DURING RE-OP 6=UNKNOWN 7=EXTENDED CARE FACILITY 8=HOSPICE 9=ACUTE REHAB 10=OTHER	2
159	CAUSE DEATH	CAUSEDEATH	NUMERIC	1=CARDIAC 2=NEUROLOGIC 3=RENAL 4=VASCULAR 5=INFECTION 6=PULMONARY 7=VALVULAR 8=OTHER 9=UNKNOWN	1
160	STATUS AT 30 DAYS AFTER SURGERY	STATUS30	NUMERIC	1=ALIVE 2=DEAD 3=UNKNOWN	1